



ANNEX A  
**ONTARIO COUNTY**



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## JURISDICTION PROFILE

### OVERVIEW

Ontario County is in the State of New York with a population of more than 112,400. The county seat is Canandaigua. According to the U.S. Census Bureau, the county has a total area of 663 square miles, of which 644 square miles is land and 18 square miles (2.8%) is water. Ontario County is in western New York State, east of Buffalo, southeast of Rochester, and northwest of Ithaca. The county is within the Finger Lakes Region of the state.

Figure A-1 shows the Ontario County Planning Area.

## ONTARIO COUNTY CONTACT INFORMATION

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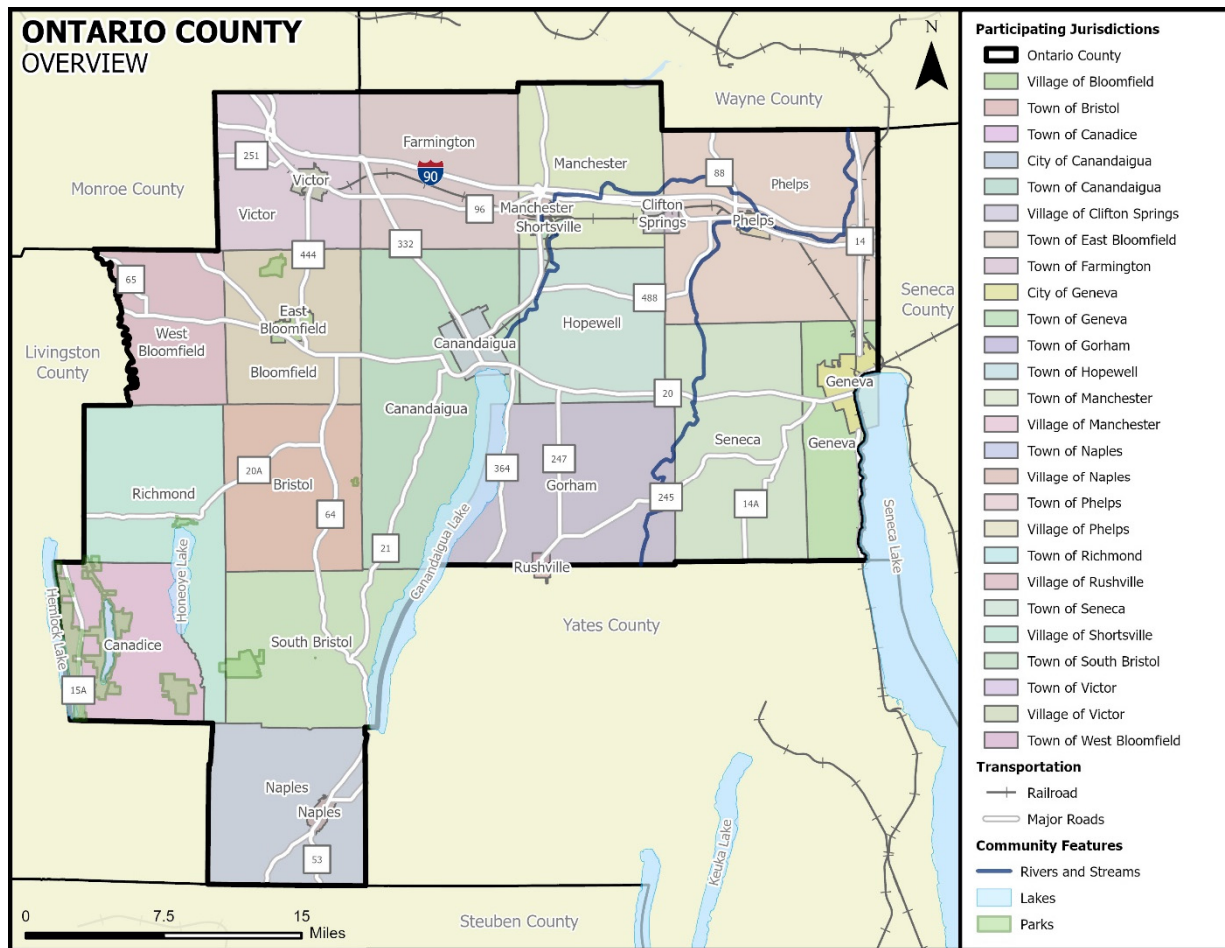
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Figure A-1. Ontario County Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)



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## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, Ontario County has an official population of 112,458 residents, a 4.2 percent increase since the 2010 census. Table A-1 summarizes select characteristics of vulnerable or sensitive populations in Ontario County using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table A-1. Population Distribution for Ontario County**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Ontario County	107,931	112,060	3.83	5,382	22,554	9,525

## POPULATION GROWTH

The official 2020 Ontario County population is 112,458. Overall, Ontario County experienced an increase in population between 1990 and 2020 of 18.3 percent, or an increase by 17,357 residents. Between 2010 and 2020, Ontario County continued to experience population growth. Table A-2 provides historic change rates in Ontario County.

**Table A-2. Population Growth for the Ontario County, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Ontario County	95,101	100,224	107,931	112,458	17,357	18.3	4,527	4.2

## FUTURE DEVELOPMENT

To better understand how future growth and development in Ontario County might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>



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Population projections from 2010 to 2040 are listed in Table A-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level.** The population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

**Table A-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides an explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table A-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table A-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Ontario County	Director of Emergency Management Services

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Ontario County website. A total of 202 surveys were completed for Ontario County. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

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The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. A paper copy of the entire draft plan was also made available by the Ontario County Emergency Management Services at the Safety Training Facility along with being available at the Board of Supervisors meeting. Two Board of Supervisors meetings were held during the 30 day public review period. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews, and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on Ontario County's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.



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## HAZARD PROFILES

### DAM FAILURE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the dam failure hazard for each participating jurisdiction impacted by dam failure (Section 5). The National Dam Safety Review Board (in coordination with FEMA) and the National Inventory of Dams (NID) list a total of 10 dams in the entire Ontario County planning area, including all jurisdictions. Each of these dams were analyzed individually by location, volume, elevation, and condition (where available) when determining the risk, if any, for each dam. Each dam site was further analyzed for potential risks utilizing FEMA’s National Flood Hazard Layer to map locations and fully understand development near the dam and topographical variations that may increase risk. Based on the detailed analysis, the planning team was able to determine that only 4 of the 10 dams identified may pose a risk to Ontario County.

**Table A-5. Ontario County Dam Survey<sup>8</sup>**

LOCATIONS AT RISK	DAM NAME	HEIGHT (Ft.)	MAX STORAGE (Acre Ft.)	CONDITION	HAZARD CLASSIFICATION
Town of Canadice	Canadice Lake Dam	11	16,195	Satisfactory	High
Town of South Bristol	Ontario Park Dam	20	19	Not Rated	High
Town of Victor/Town of East Bloomfield	Fairport Reservoir Dam #1 (West Lake Dam)	45	322	Not Rated	Significant
Town of Victor/Town of East Bloomfield	Fairport Reservoir Dam #2 (East Lake Dam)	20	228	Not Rated	Significant

#### **Canadice Lake Dam**

Canadice Lake Dam is located in Ontario County and is owned by the City of Rochester. The earthen dam was constructed in 1947 for the purposes of a water supply. The area located within a three mile radius of the dam is rural with 10 to 15 residential properties within 0.2 miles of the dam, and the Canadice Lake Trail directly north. U.S. Route 20A is 3.32 miles north of the dam. The maximum storage capacity is 16,195 acre-feet. In the event of a breach during extreme conditions, a dam failure could cause limited damage to infrastructure, minor power outages and could disrupt utility systems. In the event of a breach, it is estimated that the average breach width would be 195.2 feet with a maximum breach flow of 10,862 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of up to 3-5 feet, with the highest depth in the immediate area of the dam.

#### **Ontario Park Dam**

The Ontario Park Dam is located in the Ontario County Park at Gannett Hill, which is to the west of Canandaigua Lake. The dam was constructed in 1966 and is owned by Ontario County and operated for the primary purpose of recreation. In the event of a breach during extreme conditions, a dam failure could cause limited infrastructure damage, minor power outages and could disrupt

<sup>8</sup> National Inventory of Dams

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utility systems. The area within a 1-mile radius of the dam is rural with limited development. A breach of the Ontario Parks Dam would travel east towards Canandaigua Lake, 2.7 miles downhill. Approximately 11 residential structures, 11 highway culverts, 7 public highways would be impacted and may result in damages. One of the residential structures would be in a high hazard situation if there was a breach.<sup>9</sup> In the event of a breach, it is estimated that the average breach width would be 41.9 feet with a maximum breach flow of 2,746 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of up to 10-15 feet, with the highest depth in the immediate area of the dam.

### **Fairport Reservoir Dam #1 (West Lake Dam):**

Fairport Reservoir Dam #1 also known as West Lake Dam is an earthen dam located in Boughton Park. The Park is located in the Town of East Bloomfield and jointly owned by the Towns of Victor, East Bloomfield, and West Bloomfield. It was constructed in 1932 to create a water supply reservoir for the Village of Fairport in Monroe County. The maximum storage capacity is 228 acre-feet. In the event of a breach, a dam failure could cause limited infrastructure damage, minor power outages and could disrupt utility systems. The area within a 1-mile radius of the dam is rural with some residential development. A breach may impact local roads and approximately 10-12 residential structures. In the event of a breach, it is estimated that the average breach width would be 104.2 feet with a maximum breach flow of 66,045 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of 5-10 feet, with the highest depth in the immediate area of the dam.

### **Fairport Reservoir Dam #2 (East Lake Dam):**

Fairport Reservoir Dam #1 also known as East Lake Dam is an earthen dam located in Boughton Park. The Park is located in the Town of East Bloomfield and jointly owned by the Towns of Victor, East Bloomfield, and West Bloomfield. It was constructed in 1923 to create a water supply reservoir for the Village of Fairport in Monroe County. Maximum storage capacity is 322 acre-feet. In the event of a breach, a dam failure could cause limited infrastructure damage, minor power outages and could disrupt utility systems. The area within a 1-mile radius of the dam is rural with some residential development, approximately 10-15 residential structures. In the event of a breach, it is estimated that the average breach width would be 78.1 feet with a maximum breach flow of 12,180 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of up to 15-25 feet, with the highest depth in the immediate area of the dam.

Dam failure presents a low to moderate threat for the Ontario County planning area. Please see additional details provided in each annex for those communities at risk for dam failure. There are no reported dam failure events or other dam incidents recorded during the reporting period. While Ontario County is profiling dam failure, there are no known incidents, events, or damages as a result of dam failure in the planning area.

### ***PROBABILITY OF FUTURE EVENTS***

Based on historical occurrences of dam failures, the probability for future events is considered “Unlikely”, meaning an event is possible in the next ten years.

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<sup>9</sup> Ontario Parks Dam Emergency Action Plan, Ontario County Department of Public Works, October 24, 2020.



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### *VULNERABILITY AND IMPACT*

The Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts. None of the identified critical facilities were located within the estimated dam inundation zones. Impacts to critical facilities located in estimated inundation zones are listed in Section 5. In the event of a breach during extreme conditions, a dam failure could cause minor damage to infrastructure, temporary power outages, and possible nuisance flooding.

Flooding is the most prominent effect of dam failure. If the dam failure is extensive, a large amount of water would enter the downstream waterways forcing them out of their banks. There may be significant environmental effects, resulting in flooding that could disperse debris and hazardous materials downstream that can damage local ecosystems. If the event is severe, debris carried downstream can block traffic flow, cause power outages, and disrupt local utilities.

Annualized loss-estimates for dam failure are not available; neither is there a breakdown of potential dollar losses for critical facilities, infrastructure and lifelines, or hazardous-materials facilities. Historically, the overall severity of impact from a dam failure for Ontario County would be considered "Limited," meaning it could result in injuries that can be treated with first-aid, critical facilities being shut down for 24-hours or less and less than 10 percent of the property in the estimated breach inundation area destroyed or with major damage.

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## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including Ontario County, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, Ontario County can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including Ontario County, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Critical facilities are listed in the drought hazard profile of this plan and listed by jurisdiction in Appendix C. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6).

The population over 65 in Ontario County is estimated at 20 percent of the County’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 27,936 potentially vulnerable residents in Ontario County based on age. In addition, an estimated 8.5 percent of Ontario County’s population live below the poverty level (Table A-6).

**Table A-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Ontario County	22,554	5,382	9,525

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

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### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including Ontario County, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, Ontario County can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including Ontario County, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by extreme cold events. Critical facilities are listed in the extreme cold hazard profile of this plan and listed by jurisdiction in Appendix C. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7).

The population over 65 in Ontario County is estimated at 20 percent of the County’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 27,936 potentially vulnerable residents in Ontario County based on age. In addition, an estimated 8.5 percent of Ontario County’s population live below the poverty level (Table A-7).

**Table A-7. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Ontario County	22,554	5,382	9,525

Extreme cold events have been known to cause injury and fatality to humans. Overall, the total loss estimate of property and crops in the planning area is considered \$92,874 with an average annualized loss of \$3,377. Based on historic loss and damages, the impact of extreme cold damages on the Ontario County planning area, including participating jurisdictions, can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table A-8. Estimated Annualized Losses**

JURISDICTION	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Ontario County	\$92,874	\$3,377



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## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records Ontario County can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Ontario County planning team members identified the critical facilities as assets that are considered the most important to the planning area. Critical facilities are listed in the extreme heat hazard profile of this plan and listed by jurisdiction in Appendix C. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8).

The population over 65 in Ontario County is estimated at 20 percent of the County’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 27,936 potentially vulnerable residents in Ontario County based on age. In addition, an estimated 8.5 percent of Ontario County’s population live below the poverty level (Table A-9).

**Table A-9. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Ontario County	22,554	5,382	9,525

Historic losses are reported on a county-wide basis. Damages for extreme heat throughout the planning area are considered negligible. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

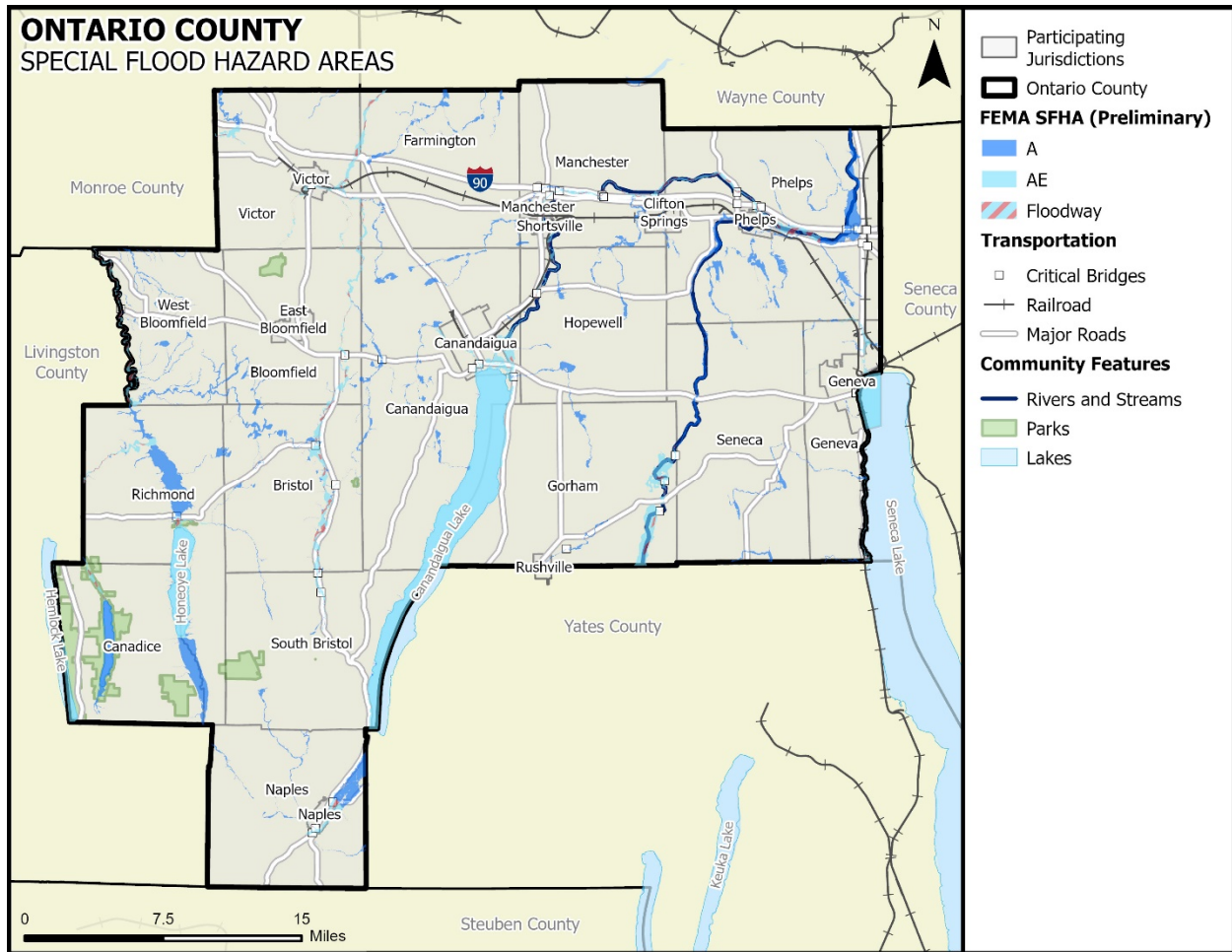
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## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood zone delineations with base flood elevations (BFEs) are available in only some areas of Ontario County. Other areas feature flood hazard boundary maps (Zone A) with no established BFE. The location of estimated flood zones for Ontario County, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure A-2.

**Figure A-2. Estimated Flood Zones in the Ontario County<sup>10</sup>**



### HISTORICAL OCCURRENCES

Table A-10 provides the historical occurrences of flood events for Ontario County according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, 72 flood events were known to have impacted Ontario County, based upon NCEI records. Flood events are often

<sup>10</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

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reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table A-10. Historical Flood Events, 1996-2023<sup>11</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Ontario County	1/19/1996	0	0	\$4,220,053	\$0
City and Town of Canandaigua	10/19/1996	0	0	\$93,547	\$0
City and Town of Canandaigua	10/20/1996	0	0	\$93,547	\$0
Town of South Bristol	1/8/1998	0	0	\$27,491	\$0
Town of South Bristol	1/8/1998	0	0	\$1,833	\$0
Town of South Bristol	1/8/1998	0	0	\$1,833	\$0
Town and Village of Naples	5/12/2000	0	0	\$129,521	\$0
City and Town of Canandaigua	7/31/2000	0	0	\$42,849	\$0
City and Town of Canandaigua	7/31/2000	0	0	\$42,849	\$0
City and Town of Geneva	7/31/2000	0	0	\$257,093	\$0
Town and Village of Phelps	8/3/2001	0	0	\$66,743	\$0
Town and Village of Phelps	5/29/2002	0	0	\$411,806	\$0
Town of Richmond	8/5/2003	0	0	\$3,208,787	\$0
City and Town of Canandaigua	5/13/2004	0	0	\$15,662	\$0
City and Town of Canandaigua	5/14/2004	0	0	\$7,831	\$0
Town and Village of Naples	5/20/2004	0	0	\$9,397,282	\$0
Town and Village of Naples	5/22/2004	0	0	\$15,662	\$0
Ontario County	4/2/2005	0	1	\$152,195	\$0
Town of South Bristol	6/29/2005	0	0	\$38,068	\$0
Town of Bristol	6/3/2007	0	0	\$106,612	\$0
Town of Richmond	6/3/2007	0	0	\$21,322	\$0
City and Town of Canandaigua	6/28/2010	0	0	\$40,764	\$0
City and Town of Canandaigua	7/9/2010	0	0	\$13,585	\$0
Town of Gorham	7/9/2010	0	0	\$20,378	\$0
Town of Gorham	7/9/2010	0	0	\$20,378	\$0
Town of Bristol	7/13/2010	0	0	\$20,378	\$0
Town of Canadice	7/13/2010	0	0	\$40,755	\$0

<sup>11</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.



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JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Richmond	7/13/2010	0	0	\$13,585	\$0
Town and Village of Naples	9/30/2010	0	0	\$13,559	\$0
Town of Canadice	4/26/2011	0	0	\$1,448,552	\$0
Town and Village of Victor	6/13/2013	0	0	\$12,684	\$0
Town of Bristol	5/16/2014	0	0	\$186,741	\$0
Town and Village of Naples	5/16/2014	0	0	\$186,741	\$0
Town of Canadice	7/28/2014	0	0	\$43,509	\$0
Town of Richmond	7/28/2014	0	0	\$186,467	\$0
Town of Seneca	7/28/2014	0	0	\$43,509	\$0
Town of Canadice	5/18/2015	0	0	\$18,682	\$0
City and Town of Geneva	5/18/2015	0	0	\$24,909	\$0
Town of Canadice	6/14/2015	0	0	\$62,054	\$0
Town and Village of Naples	6/14/2015	0	0	\$18,616	\$0
Town of Richmond	6/14/2015	0	0	\$31,027	\$0
City and Town of Geneva	7/13/2017	0	0	\$24,198	\$0
Town of Hopewell	7/13/2017	0	0	\$60,495	\$0
City and Town of Canandaigua	7/23/2017	0	0	\$60,495	\$0
Town of Canadice	7/23/2017	0	0	\$24,198	\$0
Town of Farmington	6/20/2019	0	0	\$23,125	\$0
Town of Richmond	6/20/2019	0	0	\$1,156	\$0
City and Town of Geneva	8/18/2019	0	0	\$1,154	\$0
City and Town of Geneva	8/18/2019	0	0	\$230,880	\$0
City and Town of Canandaigua	7/9/2023	0	0	\$501,000	\$0
<b>TOTALS</b>		<b>0</b>	<b>1</b>	<b>\$21,726,160</b>	<b>\$0</b>

Based on the list of historical flood events for Ontario County, ten of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records, Ontario County can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from

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a variety of natural hazards, including those facilities located in the regulatory floodplain. Table A-11 includes the critical facilities in Ontario County located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in the flood hazard profile (Section 9).

**Table A-11. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
City of Geneva	Gulvin Park Pump Station Structure	Utility	1%
City of Geneva	Sewage Treatment Plant (South Plant) Structure	Utility	1%
Ontario County / Village of Victor	County Bridge	Transportation	1%
Town of Canandaigua	Outhouse Park	Evacuation Center	1%
Town of Canandaigua	County Road 16 Canandaigua (West Lake Road)	Transportation	1%
Town of Canandaigua	State Route 364 Canandaigua / East Lake Road	Transportation	1%
Town of Gorham	Bridges (West River Bridge, East Swamp Flint Creek, Tileyard Road Flint Creek, Lake to Lake Road Flint Creek, Railroad Avenue West River)	Transportation	1%
Town of Gorham	Bridges (West River Bridge, East Swamp Flint Creek, Tileyard Road Flint Creek, Lake to Lake Road Flint Creek, Railroad Avenue West River)	Transportation	1%
Town of Phelps	Sewage Treatment Plant	Utility	1%
Town of Phelps	Bridge - NYS Thruway Authority - 0.6 Miles West OF Exit 42 90I	Transportation	1%
Town of Richmond	Honeoye Lake Sewer District	Government Utility	1%
Village of Clifton Springs	Foster Block	Historical Building	1%
Village of Clifton Springs	G. W. Lisk	Community Facility	1%
Village of Naples	Village of Naples Department of Public Works	Transportation	1%
Village of Naples	Village Sewer Plant	Utility	1%
Village of Phelps	Sewage Treatment Plant Structure	Utility	1%

Historic loss estimates due to flood are presented in Table A-12 below.

**Table A-12. Estimated Annualized Losses**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Ontario County	72	\$21,726,160	\$790,042

# ANNEX A: ONTARIO COUNTY

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8.5 percent of Ontario County’s population live below the poverty level (Table A-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table A-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Ontario County	9,525

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table A-14 depicts the level of impact for Ontario County.

**Table A-14 Ontario County Impact**

JURISDICTION	IMPACT	DESCRIPTION
Ontario County	Major	Historic events and losses indicate that Ontario County could anticipate an impact of limited with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged. However, the historical injuries reported indicate a “major” impact, with multiple significant injuries possible.

***NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION***

All participating jurisdictions, except Ontario County, are currently participating in the NFIP and are in good standing. With no unincorporated areas, Ontario County is not eligible to participate in the NFIP.

***REPETITIVE LOSS***

Ontario County is not an eligible participant in the NFIP and therefore has no repetitive loss properties. Repetitive loss properties for each NFIP participating municipality have been included in their respective annex, where applicable.

## ANNEX A: ONTARIO COUNTY

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

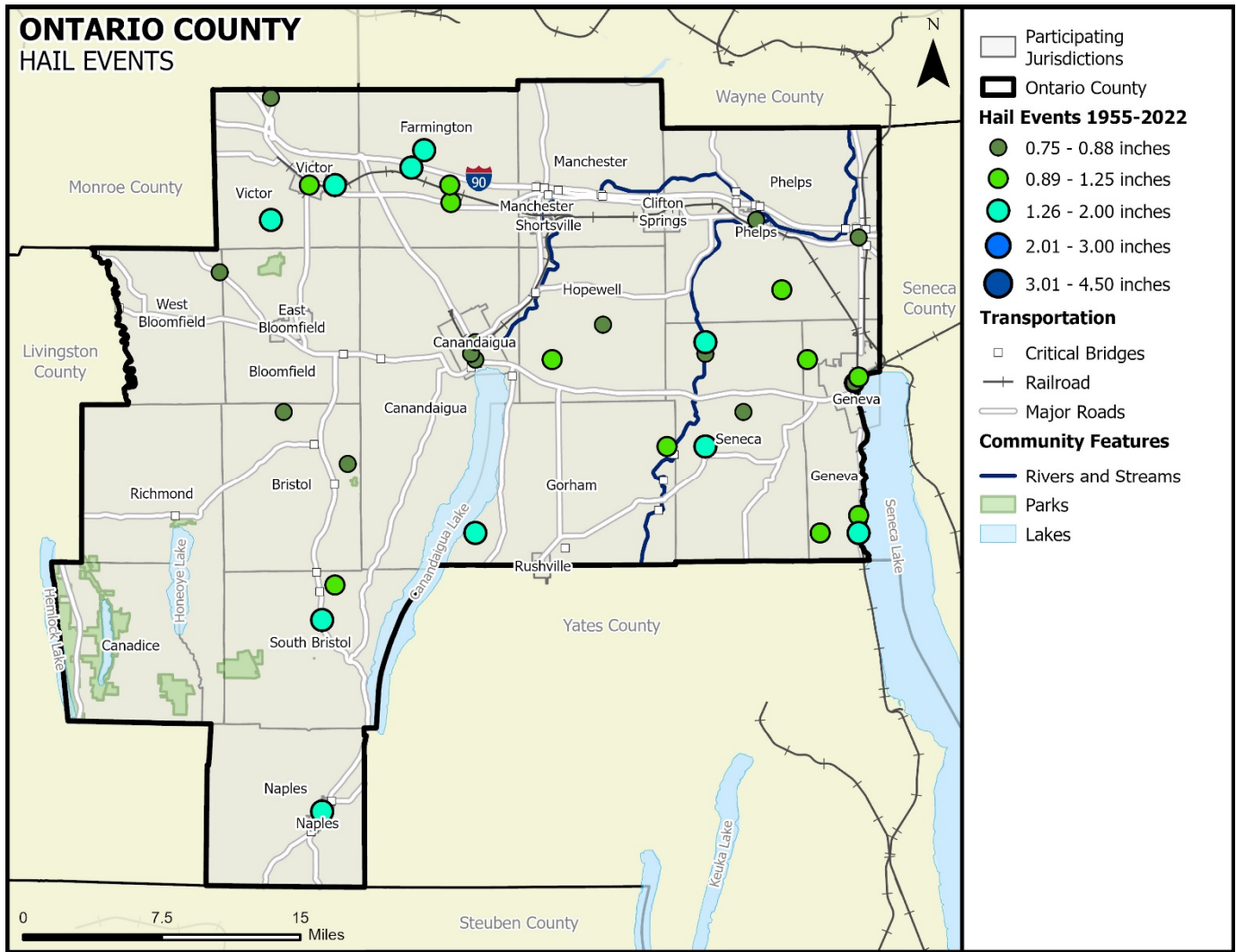
The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence shown in Figure A-3 demonstrates that Ontario County is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table A-15. A total of 46 reported historical hail events impacted Ontario County between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67 years. Only those events for Ontario County with latitude and longitude available were plotted (Figure A-3).

# ANNEX A: ONTARIO COUNTY

**Figure A-3. Historical Hail Events, 1956-2023<sup>12</sup>**



**Table A-15. Historical Hail Events, 1956-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of West Bloomfield	8/14/1998	0.75	0	0	\$9,063	\$0
City & Town of Canandaigua	10/13/1999	0.75	0	0	\$26,412	\$0
City & Town of Geneva	5/10/2000	1	0	0	\$17,269	\$0
City & Town of Geneva	5/24/2000	0.75	0	0	\$86,347	\$0

<sup>12</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

<sup>13</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.



## ANNEX A: ONTARIO COUNTY

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City & Town of Geneva	10/21/2001	0.75	0	0	\$3,333	\$0
Town of Seneca	4/18/2004	0.75	0	0	\$157,538	\$0
City & Town of Canandaigua	5/13/2004	0.75	0	0	\$7,831	\$0
City & Town of Canandaigua	7/25/2006	0.75	0	0	\$11,643	\$0
Town & Village of Manchester	6/16/2008	1.5	0	0	\$67,676	\$1,624,227
Town of Farmington	7/23/2008	1.5	0	0	\$6,732	\$20,197
Town & Village of Victor	8/10/2008	1.75	0	0	\$27,037	\$0
Town of Seneca	6/22/2011	1.25	0	0	\$10,497	\$0
Ontario County	5/29/2012	1	0	0	\$6,444	\$6,444
Town of South Bristol	5/29/2012	1	0	0	\$6,444	\$6,444
City & Town of Geneva	5/21/2013	1.75	0	0	\$6,357	\$12,714
City & Town of Geneva	5/21/2013	1.75	0	0	\$19,071	\$0
City & Town of Geneva	5/21/2013	1	0	0	\$6,357	\$0
Town of Seneca	5/21/2013	1.75	0	0	\$6,357	\$12,714
Town of Seneca	5/21/2013	2	0	0	\$6,357	\$12,714
Town & Village of Victor	6/3/2014	1	0	0	\$12,426	\$0
City & Town of Geneva	7/31/2014	0.88	0	0	\$0	\$24,862
City & Town of Geneva	7/31/2014	1	0	0	\$12,431	\$37,293
Town of Hopewell	5/14/2017	1	0	0	\$2,420	\$0
Town of Farmington	6/16/2022	1.25	0	0	\$21,886	\$0
<b>TOTALS</b>		<b>(Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$537,928</b>	<b>\$1,757,609</b>

Based on the list of historical hail events for Ontario County, five reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. Based on available records of historic events, 46 events in a 67.5-year reporting period for Ontario County results in an average annual occurrence of approximately one event occurring each year. This frequency supports a “Highly Likely” probability of future events for the Ontario County planning area.

### *VULNERABILITY AND IMPACT*

Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area. Critical facilities are listed in the hail hazard profile of this

## ANNEX A: ONTARIO COUNTY

plan and listed by jurisdiction in Appendix C. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

The U.S. Census data indicates a total of 3,601 (7 percent of total housing stock) manufactured homes located in Ontario County. In addition, 57 percent (approximately 29,775 structures) of the housing structures in Ontario County were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant hail events.

**Table A-16. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Ontario County	3,601	29,775

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8.5 percent of Ontario County's population live below the poverty level (Table A-17).

**Table A-17. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Ontario County	9,525

Overall, the total loss estimate of property and crops in Ontario County is \$2,295,537 with an average annualized loss of \$34,008. Based on historic loss and damages, the impact of hail damages in Ontario County can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table A-18. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Ontario County	\$2,295,537	\$34,008

# ANNEX A: ONTARIO COUNTY

## ICE STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including Ontario County, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, Ontario County can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by ice storm events. Critical facilities are listed in the ice storm hazard profile of this plan and listed by jurisdiction in Appendix C. Ice Storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11).

The population over 65 in Ontario County is estimated at 20 percent of the County’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 27,936 potentially vulnerable residents in Ontario County based on age. In addition, an estimated 8.5 percent of Ontario County’s population live below the poverty level (Table A-19).

**Table A-19. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Ontario County	22,554	5,382	9,525

Overall, the total loss estimate of property and crops in the planning area is estimated at \$6,318,451 with an average annualized loss of \$229,762. Based on historic loss and damages, the impact of ice storm damages on the Ontario County planning area, including participating jurisdictions, can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table A-20. Ice Storm Event Annualized Losses**

JURISDICTION	PROPERTY AND CROP LOSS	ANNUAL LOSS ESTIMATES
Ontario County	\$6,318,451	\$229,762

# ANNEX A: ONTARIO COUNTY

## LANDSLIDE

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides.

According to the New York State Hazard Mitigation Plan, the entire population in Ontario County is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

**Table A-21. Historical Landslide Events, 1996-2023<sup>14</sup>**

JURISDICTION	DATE	INJURIES	FATALITIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Richmond	7/13/2010	0	0	\$0	\$0
Town of Canandaigua	6/28/2010	0	0	\$0	\$0
<b>TOTAL LOSSES</b>		<b>0</b>	<b>0</b>	<b>\$0</b>	

### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are two known historic events of landslide in Ontario County over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for Ontario County.

### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

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<sup>14</sup> Damages are reported from January 1996 through June 2023.

# ANNEX A: ONTARIO COUNTY

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been 5 recorded lightning events in Ontario County from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

**Table A-22. Historical Lightning Events, 1996-2023<sup>15</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	7/4/2001	0	3	\$0	\$0
Town of Seneca	8/3/2003	0	0	\$24,066	\$0
Town and Village of Naples	8/8/2005	0	0	\$75,400	\$0
City and Town of Canandaigua	8/25/2011	0	0	\$32,683	\$0
City and Town of Canandaigua	5/29/2016	0	0	\$43,150	\$0
<b>TOTALS</b>		<b>0</b>	<b>3</b>	<b>\$175,299</b>	

Based on the list of historical lightning events for Ontario County, there have been no reported events since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in Ontario County is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by lightning events. Critical facilities are listed in the lightning hazard profile of this plan and listed by jurisdiction in Appendix C. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

<sup>15</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.



## ANNEX A: ONTARIO COUNTY

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8.5 percent of Ontario County's population live below the poverty level (Table A-23).

**Table A-23. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Ontario County	9,525

The impact of lightning experienced in the Ontario County planning area has resulted in limited damages, three injuries and no fatalities. While the damages to structures and infrastructure are considered limited, meaning services could be shutdown for 24 hours or less, and less than 10 percent of property destroyed. However, the historical injuries indicate a "Major" impact with multiple significant injuries possible depending on the force and location of the strike. Overall, the average loss estimate for Ontario County (in 2023 dollars) is considered \$175,299 with annualized losses of \$6,375.

**Table A-24. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Ontario County	\$175,299	\$6,375

## ANNEX A: ONTARIO COUNTY

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including Ontario County, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, Ontario County can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including Ontario County, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by snow storm events. Critical facilities are listed in the snow storm hazard profile of this plan and listed by jurisdiction in Appendix C. Snowstorm impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 14).

The population over 65 in Ontario County is estimated at 20 percent of the County’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 27,936 potentially vulnerable residents in Ontario County based on age. In addition, an estimated 8.5 percent of Ontario County’s population live below the poverty level (Table A-25).

**Table A-25. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Ontario County	22,554	5,382	9,525

Overall, the estimated losses of property and crops in the planning area due to snow storms is \$3,172,267 with an average annualized loss of \$115,355. Based on historic loss and damages, the impact of snow storm damages in the Ontario County planning area can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table A-26 Estimated Annualized Losses**

JURISDICTION	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Ontario County	\$3,172,267	\$115,355

# ANNEX A: ONTARIO COUNTY

## TORNADO

### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### *HISTORICAL OCCURRENCES*

Table A-27 provides the historical occurrences of tornado events for Ontario County according to the National Centers for Environmental Information (NCEI) Storm Events database. From January 1994 through August 2023, five tornado events are known to have impacted Ontario County, based upon NCEI records.

**Table A-27. Historical Tornado Events, 1994-2023<sup>16</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City of Geneva	8/21/1994	F1	0	0	\$993,862	\$0
Town of South Bristol	6/22/1996	F1	0	0	\$94,503	\$28,351
Town of Victor	7/15/1996	F1	0	0	\$56,593	\$0
Town of Bristol	8/29/2009	EF0	0	0	\$686,108	\$0
Town of Farmington	6/10/2015	EF0	0	0	\$43,438	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$1,874,504</b>	<b>\$28,351</b>

Based on the list of historical tornado events for Ontario County, there have been no recorded events since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

With five historical tornado events over a 29-year reporting period, Ontario County can anticipate a tornado touchdown approximately once every five years. This frequency supports an “Occasional” probability of future events for the Ontario County planning area.

### *VULNERABILITY AND IMPACT*

The Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

The U.S. Census data indicates a total of 3,601 (7 percent of total housing stock) manufactured homes located in Ontario County. In addition, 57 percent (approximately 29,775 structures) of the housing structures in Ontario County were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

<sup>16</sup> Historical events are reported from January 1994 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX A: ONTARIO COUNTY

**Table A-28. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Ontario County	3,601	29,775

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8.5 percent of Ontario County’s population live below the poverty level (Table A-29).

**Table A-29. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Ontario County	9,525

The total loss estimate due to tornado events is \$1,902,855 (in 2023 dollars), having an approximate annual loss estimate of \$65,615. Based on historic damages and best available data the impact of a tornado event on Ontario County would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table A-30. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Ontario County	\$1,902,855	\$65,615

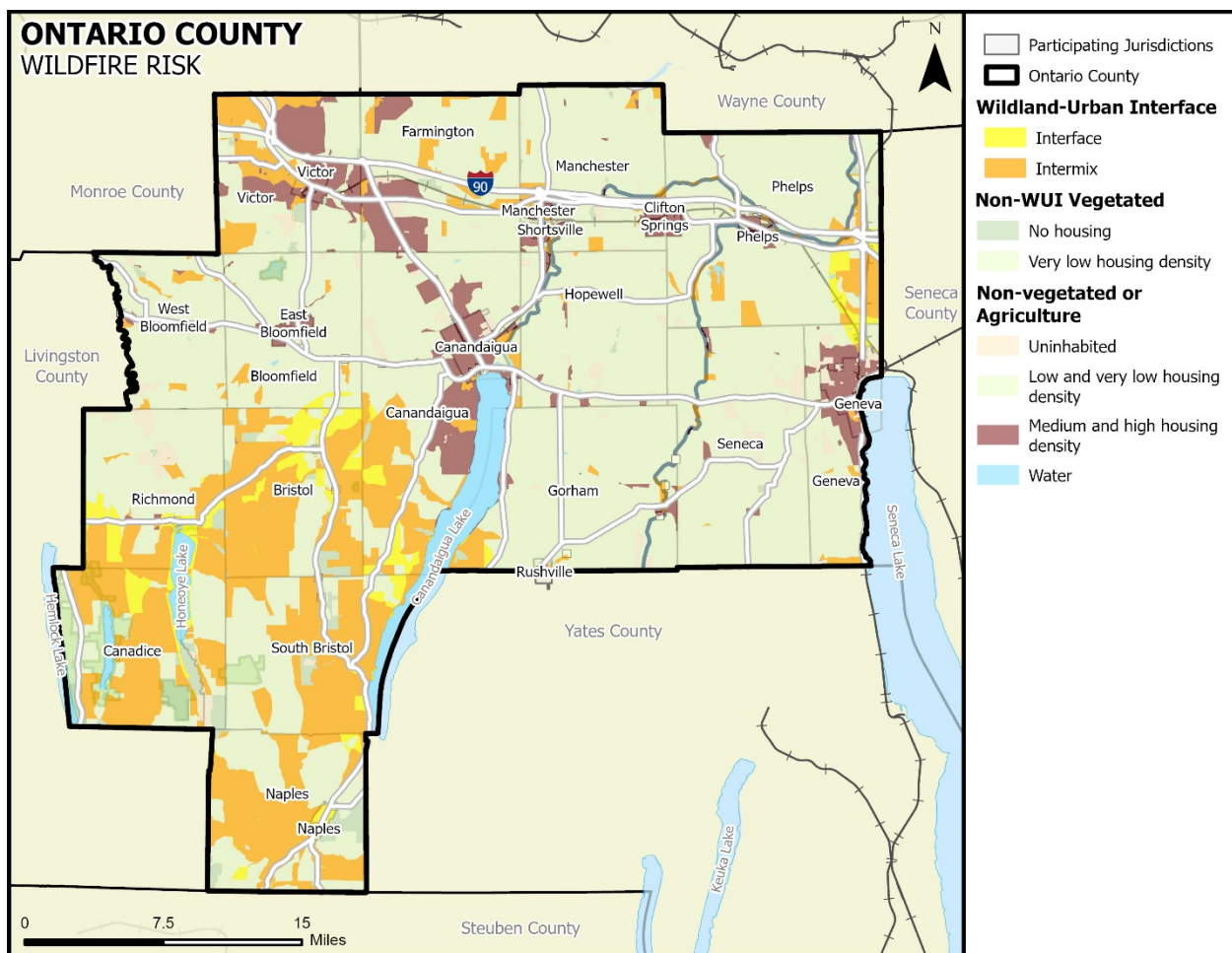
# ANNEX A: ONTARIO COUNTY

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure A-4). The Ontario County planning area is considered at low risk for wildfires with limited WUI areas.

Figure A-4. Ontario County Wildland Urban Interface Map<sup>17</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>17</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)



## ANNEX A: ONTARIO COUNTY

of Forest Protection issues color coded danger alerts. The entire planning area, including Ontario County, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

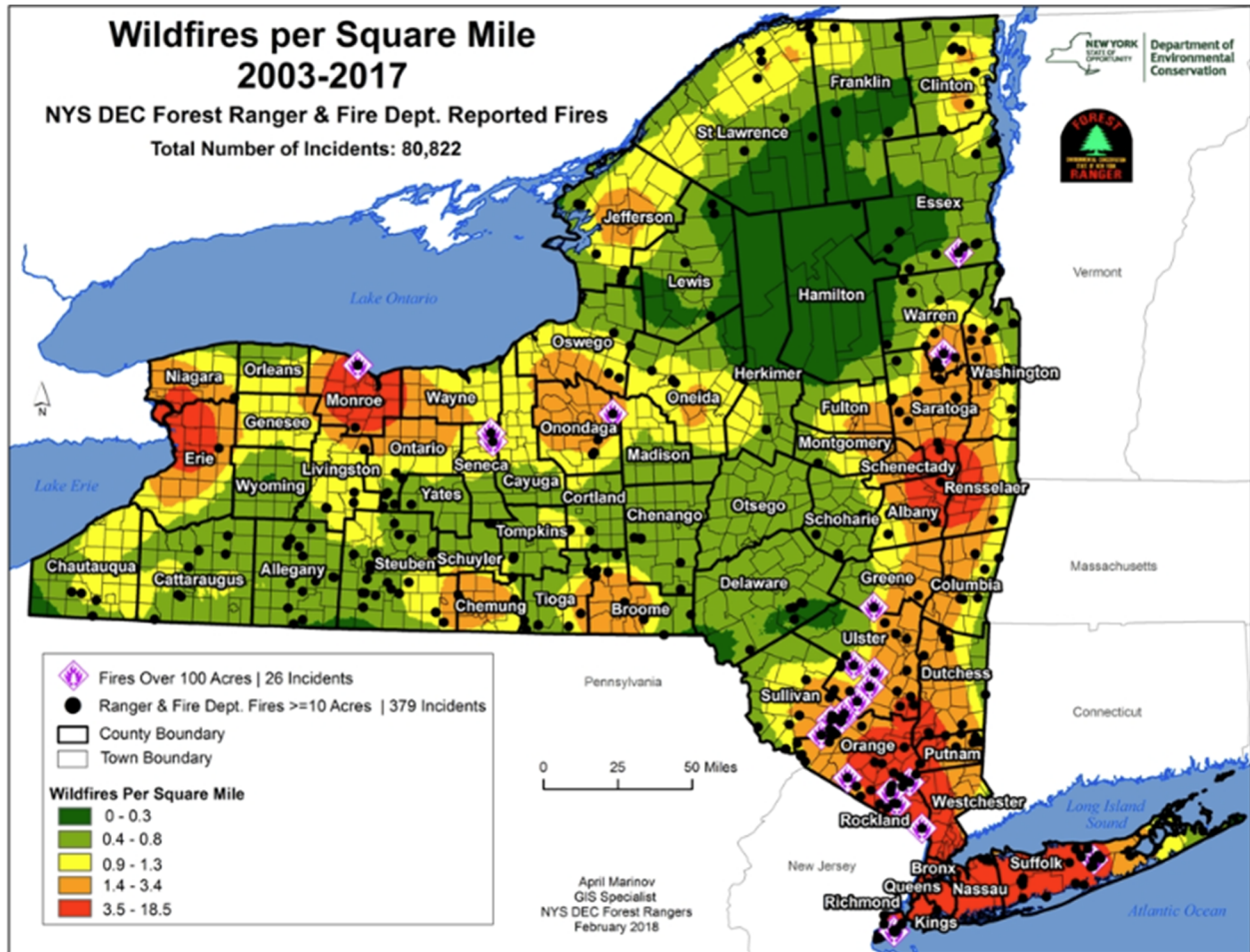
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure A-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate future wildfire events typically less than 10 acres.

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Figure A-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by wildfire events. Critical facilities are listed in the wildfire hazard profile of this plan and listed by jurisdiction in Appendix C. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

## ANNEX A: ONTARIO COUNTY

For Ontario County, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

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### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, 268 wind events are known to have occurred in Ontario County. Table A-31 presents information on known historical events impacting Ontario County.

**Table A-31. Historical Wind Events, 1956-2023<sup>18</sup>**

JURISDICTION	DATE	MAGNITUDE (Knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	8/31/1993	Unknown	0	0	\$102,269	\$0
Town and Village of Phelps	7/26/1994	Unknown	0	0	\$9,979	\$0
Village of Clifton Springs	8/28/1994	Unknown	0	0	\$99,386	\$0
Town and Village of Phelps	7/6/1995	Unknown	0	0	\$38,842	\$0
Town of Bristol	7/15/1995	Unknown	0	0	\$29,132	\$0
Town of Gorham	7/15/1995	Unknown	0	0	\$29,132	\$0
Ontario County	1/27/1996	Unknown	0	0	\$47,955	\$0
Town of Gorham	5/10/1996	Unknown	0	0	\$18,913	\$0
City and Town of Canandaigua <sup>19</sup>	6/22/1996	Unknown	0	3	\$170,105	\$0
Ontario County	2/27/1997	Unknown	0	0	\$92,785	\$0
Ontario County	3/28/1998	Unknown	0	0	\$27,389	\$0
Town and Village of Victor <sup>20</sup>	5/31/1998	Unknown	0	0	\$54,577	\$0
Village of Clifton Springs	6/2/1998	Unknown	0	0	\$36,340	\$0
City and Town of Canandaigua	6/25/1998	Unknown	0	0	\$21,804	\$0
City and Town of Canandaigua	6/30/1998	Unknown	0	0	\$21,804	\$0
Town and Village of Phelps <sup>21</sup>	6/30/1998	Unknown	0	0	\$18,170	\$0
Town of Farmington	8/24/1998	Unknown	0	0	\$27,188	\$0

<sup>18</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars. Only events with reported damages are listed.

<sup>19</sup> City and Town of Canandaigua are not listed separately in the NCEI. For the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

<sup>20</sup> Town and Village of Victor are not listed separately in the NCEI. For the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

<sup>21</sup> Town and Village of Phelps are not listed separately in the NCEI. For the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

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JURISDICTION	DATE	MAGNITUDE (Knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	9/7/1998	Unknown	0	0	\$1,810,336	\$0
Ontario County	11/10/1998	Unknown	0	0	\$45,148	\$0
Town of Gorham	7/3/1999	Unknown	0	0	\$17,767	\$0
Ontario County	1/4/2000	Unknown	0	0	\$17,546	\$0
City and Town of Canandaigua	7/9/2000	Unknown	0	0	\$25,709	\$0
Ontario County	12/12/2000	Unknown	0	0	\$127,660	\$0
Ontario County	2/10/2001	Unknown	0	0	\$168,470	\$0
City and Town of Canandaigua	7/10/2001	50	0	0	\$13,349	\$0
City and Town of Canandaigua	7/10/2001	50	0	0	\$25,029	\$0
Ontario County	10/14/2001	50	0	0	\$16,667	\$0
Ontario County	2/1/2002	52	0	0	\$832,877	\$0
Ontario County	3/9/2002	52	0	0	\$165,644	\$0
Town and Village of Naples <sup>22</sup>	7/22/2002	50	0	0	\$16,445	\$0
Town and Village of Victor	7/22/2002	55	0	1	\$74,002	\$0
City and Town of Canandaigua	7/28/2002	55	0	0	\$65,779	\$0
Ontario County	10/15/2003	50	0	0	\$240,139	\$0
Ontario County	11/13/2003	52	1	0	\$0	\$0
City and Town of Canandaigua	5/13/2004	50	0	0	\$12,530	\$0
City and Town of Canandaigua	5/22/2004	50	0	0	\$23,493	\$0
Town and Village of Victor	7/26/2005	50	0	0	\$53,050	\$0
Town of Seneca	8/8/2005	10	0	0	\$15,080	\$0
Town of Gorham	9/29/2005	50	0	0	\$22,347	\$0
Town and Village of Phelps	11/6/2005	50	0	0	\$22,483	\$0
Ontario County	2/17/2006	55	0	0	\$223,582	\$0
Village of Clifton Springs	6/28/2006	50	0	0	\$11,678	\$0
City and Town of Geneva <sup>23</sup>	7/20/2006	70	0	0	\$291,077	\$145,539
Ontario County	12/1/2006	50	0	0	\$29,353	\$0

<sup>22</sup> Town and Village of Naples are not listed separately in the NCEI. For the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

<sup>23</sup> City and Town of Geneva are not listed separately in the NCEI. For the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.



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JURISDICTION	DATE	MAGNITUDE (Knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Manchester <sup>24</sup>	6/8/2007	50	0	0	\$14,215	\$0
City and Town of Geneva	6/21/2007	50	0	0	\$21,322	\$0
Town and Village of Phelps	6/21/2007	50	0	0	\$17,058	\$0
Town and Village of Naples	7/8/2007	50	0	0	\$14,219	\$0
Town of Bristol	8/16/2007	50	0	0	\$11,396	\$0
City and Town of Canandaigua	8/16/2007	50	0	0	\$11,396	\$0
Town of Gorham	8/16/2007	50	0	0	\$7,122	\$0
Town and Village of Victor	8/24/2007	50	0	0	\$17,094	\$0
City and Town of Canandaigua	9/11/2007	50	0	0	\$14,206	\$0
Town of East Bloomfield and Village of Bloomfield <sup>25</sup>	1/9/2008	56	0	0	\$21,047	\$0
Town and Village of Naples	1/9/2008	50	0	0	\$14,031	\$0
Town and Village of Phelps	1/9/2008	50	0	0	\$11,225	\$0
Ontario County	1/30/2008	52	0	0	\$140,312	\$0
Town and Village of Phelps	4/26/2008	50	0	0	\$13,787	\$0
Town of Bristol	6/13/2008	50	0	0	\$20,303	\$0
Town of Richmond	6/29/2008	50	0	0	\$20,303	\$0
Town and Village of Naples	7/17/2008	52	0	0	\$33,661	\$0
City and Town of Geneva	7/19/2008	50	0	0	\$47,126	\$0
Town and Village of Phelps	7/21/2008	50	0	0	\$20,197	\$0
Ontario County	9/14/2008	50	0	0	\$135,372	\$0
Ontario County	12/28/2008	52	0	0	\$140,881	\$0
Ontario County	2/12/2009	52	0	0	\$41,873	\$0
City and Town of Canandaigua	6/26/2009	51	0	0	\$20,597	\$0
City and Town of Geneva	7/26/2009	51	0	0	\$20,629	\$0
Town and Village of Phelps	7/26/2009	51	0	0	\$24,755	\$0
Ontario County	5/8/2010	50	0	0	\$135,747	\$0
Town of Farmington	8/16/2010	50	0	0	\$13,566	\$0

<sup>24</sup> Town and Village of Manchester are not listed separately in the NCEI. For the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

<sup>25</sup> Town of East Bloomfield and Village of Bloomfield (formerly the Village of East Bloomfield) are not listed separately in the NCEI. For the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

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JURISDICTION	DATE	MAGNITUDE (Knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	8/16/2010	50	0	0	\$13,566	\$0
Town and Village of Victor	8/16/2010	50	0	0	\$13,566	\$0
City and Town of Canandaigua	4/27/2011	51	0	0	\$19,753	\$0
City and Town of Canandaigua	5/29/2011	50	0	0	\$13,107	\$0
City and Town of Geneva	5/29/2011	50	0	0	\$10,486	\$0
Town and Village of Phelps	5/29/2011	51	0	0	\$10,486	\$0
Ontario County	8/28/2011	50	0	0	\$19,610	\$0
City and Town of Canandaigua	9/11/2011	50	0	0	\$19,580	\$0
Ontario County	1/17/2012	52	0	0	\$65,332	\$0
Town of Bristol	5/3/2012	50	0	0	\$19,331	\$0
Town of East Bloomfield and Village of Bloomfield	5/3/2012	50	0	0	\$19,331	\$0
Town of Farmington	5/3/2012	50	0	0	\$19,331	\$0
Town and Village of Victor	5/3/2012	50	0	0	\$19,331	\$0
Town of South Bristol	5/29/2012	50	0	0	\$12,887	\$12,887
Town of Farmington	5/29/2012	50	0	0	\$12,887	\$12,887
Town of Gorham	5/29/2012	50	0	0	\$10,310	\$10,310
Town and Village of Phelps	5/29/2012	50	0	0	\$12,887	\$12,887
Town and Village of Victor	5/29/2012	50	0	0	\$12,887	\$12,887
Town of Hopewell	9/8/2012	50	0	0	\$12,799	\$0
Ontario County	10/29/2012	50	0	0	\$128,037	\$0
Ontario County	1/20/2013	50	0	0	\$19,292	\$0
City and Town of Geneva	5/21/2013	50	0	0	\$12,714	\$0
Town and Village of Manchester	5/21/2013	50	0	0	\$6,357	\$0
Town of Bristol	6/23/2013	50	0	0	\$12,684	\$0
Ontario County	11/1/2013	50	0	0	\$25,415	\$0
Village of Clifton Springs	5/13/2014	50	0	0	\$12,449	\$0
Town and Village of Manchester	5/13/2014	50	0	0	\$12,449	\$0
Town and Village of Phelps	5/13/2014	50	0	0	\$12,449	\$0
Town of Farmington	6/3/2014	50	0	0	\$18,639	\$0
Town and Village of Phelps	6/24/2014	50	0	0	\$18,639	\$0
Town and Village of Phelps	6/24/2014	60	2	0	\$43,492	\$0
Town of Farmington	7/8/2014	55	0	0	\$62,156	\$0

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JURISDICTION	DATE	MAGNITUDE (Knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Naples	7/8/2014	55	0	0	\$12,431	\$0
Town of Richmond	7/8/2014	55	0	0	\$12,431	\$0
Town and Village of Victor	7/8/2014	55	0	0	\$12,431	\$0
Town of Hopewell	7/14/2014	52	0	0	\$18,647	\$0
City and Town of Canandaigua	6/8/2015	50	0	0	\$18,616	\$0
Village of Clifton Springs	6/10/2015	52	0	0	\$18,616	\$0
Town and Village of Manchester	6/10/2015	52	0	0	\$18,616	\$0
Town and Village of Phelps	6/10/2015	52	0	0	\$31,027	\$0
Town and Village of Victor	6/10/2015	52	0	0	\$18,616	\$0
Town of Bristol	6/12/2015	50	0	0	\$18,616	\$0
Town of East Bloomfield and Village of Bloomfield	6/12/2015	50	0	0	\$12,411	\$0
City and Town of Geneva	6/12/2015	50	0	0	\$18,616	\$0
Town of Farmington	6/23/2015	50	0	0	\$12,411	\$0
Town and Village of Manchester	6/23/2015	50	0	0	\$12,411	\$0
Town and Village of Phelps	6/23/2015	50	0	0	\$12,411	\$0
Town and Village of Victor	6/23/2015	50	0	0	\$12,411	\$0
Town of West Bloomfield	6/23/2015	50	0	0	\$12,411	\$0
Town and Village of Victor	8/10/2015	50	0	0	\$18,641	\$0
Ontario County	1/10/2016	52	0	0	\$37,503	\$0
Town of Bristol	5/29/2016	50	0	0	\$22,192	\$0
Town of Bristol	5/29/2016	50	0	0	\$18,493	\$0
City and Town of Geneva	7/18/2016	50	0	0	\$18,462	\$0
Town and Village of Naples	7/25/2016	50	0	0	\$18,462	\$0
Town and Village of Phelps	8/13/2016	50	0	0	\$12,297	\$0
Town and Village of Phelps	8/13/2016	50	0	0	\$12,297	\$0
Town and Village of Victor	8/13/2016	50	0	0	\$12,297	\$0
Ontario County	3/8/2017	50	0	0	\$182,221	\$0
City and Town of Canandaigua	5/1/2017	56	0	0	\$30,255	\$0
City and Town of Canandaigua	5/1/2017	52	0	0	\$14,522	\$0
City and Town of Geneva	5/18/2017	52	0	0	\$14,522	\$0
Town of Seneca	6/16/2017	50	0	0	\$12,091	\$0
Town of Seneca	6/16/2017	50	0	0	\$14,509	\$0

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JURISDICTION	DATE	MAGNITUDE (Knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Manchester	6/18/2017	50	0	0	\$14,509	\$0
City and Town of Canandaigua	7/23/2017	50	0	0	\$14,519	\$0
City and Town of Geneva	8/15/2017	50	0	0	\$14,476	\$0
Town of Farmington	8/22/2017	50	0	0	\$12,063	\$0
City and Town of Geneva	9/4/2017	50	0	0	\$12,000	\$0
Town and Village of Manchester	9/4/2017	50	0	0	\$12,000	\$0
Town of Bristol	10/15/2017	50	0	0	\$14,409	\$0
Town of Canadice	10/15/2017	50	0	0	\$7,204	\$0
City and Town of Canandaigua	10/15/2017	50	0	0	\$12,007	\$0
City and Town of Canandaigua	10/15/2017	50	0	0	\$12,007	\$0
Town of East Bloomfield and Village of Bloomfield	10/15/2017	50	0	0	\$9,606	\$0
Town of Farmington	10/15/2017	50	0	0	\$9,606	\$0
City and Town of Geneva	10/15/2017	50	0	0	\$9,606	\$0
Town of Gorham	10/15/2017	50	0	0	\$12,007	\$0
Town of Gorham	10/15/2017	50	0	0	\$12,007	\$0
Town and Village of Manchester	10/15/2017	50	0	0	\$9,606	\$0
Town and Village of Manchester	10/15/2017	50	0	0	\$9,606	\$0
Town and Village of Phelps	10/15/2017	50	0	0	\$18,011	\$0
Town and Village of Victor	10/15/2017	50	0	0	\$9,606	\$0
Town and Village of Victor	10/15/2017	50	0	0	\$14,409	\$0
City and Town of Geneva	1/23/2018	43	0	2	\$47,795	\$0
Ontario County	4/4/2018	56	0	0	\$23,642	\$0
Town of Farmington	8/8/2018	52	0	0	\$1,175	\$0
Town and Village of Manchester	8/14/2018	52	0	0	\$2,349	\$0
Town of East Bloomfield and Village of Bloomfield	9/21/2018	50	0	0	\$1,173	\$0
Town of East Bloomfield and Village of Bloomfield	9/21/2018	50	0	0	\$587	\$0
Town of East Bloomfield and Village of Bloomfield	9/21/2018	50	0	0	\$9,386	\$0
Ontario County	1/1/2019	53	0	0	\$14,120	\$0
Ontario County	2/25/2019	50	0	0	\$11,717	\$0
City and Town of Geneva	5/25/2019	50	0	0	\$2,313	\$0

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JURISDICTION	DATE	MAGNITUDE (Knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Richmond	5/25/2019	50	0	0	\$1,157	\$0
Town of Gorham	7/30/2019	50	0	0	\$1,154	\$0
Town of Canadice	8/8/2019	50	0	0	\$2,309	\$0
Town and Village of Phelps	8/8/2019	50	0	0	\$577	\$0
Town of Richmond	8/8/2019	50	0	0	\$1,154	\$0
Town of West Bloomfield	8/8/2019	50	0	0	\$577	\$0
Town of West Bloomfield	8/8/2019	50	0	0	\$577	\$0
Town of Farmington	8/16/2019	50	0	0	\$1,154	\$0
Town and Village of Victor	8/16/2019	50	0	0	\$1,154	\$0
City and Town of Geneva	8/18/2019	50	0	0	\$2,309	\$0
Town and Village of Phelps	8/18/2019	50	0	0	\$2,309	\$0
Ontario County	10/31/2019	52	0	0	\$115,085	\$0
Ontario County	11/1/2019	52	0	0	\$23,030	\$0
Ontario County	4/13/2020	50	0	0	\$11,552	\$0
Town of Gorham	5/15/2020	50	0	0	\$2,310	\$0
Town of Seneca	5/15/2020	50	0	0	\$2,310	\$0
City and Town of Canandaigua	7/19/2020	51	0	0	\$28,577	\$0
Village of Shortsville	7/19/2020	51	0	0	\$6,858	\$0
Town and Village of Victor	7/19/2020	51	0	0	\$11,431	\$0
Town and Village of Victor	7/19/2020	51	0	0	\$1,143	\$0
Ontario County	7/29/2020	51	0	0	\$1,143	\$0
City and Town of Canandaigua	7/29/2020	51	0	0	\$5,715	\$0
City and Town of Canandaigua	7/29/2020	51	0	0	\$5,715	\$0
Town and Village of Phelps	7/29/2020	51	0	0	\$2,286	\$0
City and Town of Canandaigua	8/27/2020	51	0	0	\$1,139	\$0
Town of Richmond	8/27/2020	51	0	0	\$570	\$0
Town of East Bloomfield and Village of Bloomfield	6/21/2021	50	0	0	\$2,180	\$0
City and Town of Geneva	6/21/2021	50	0	0	\$2,180	\$0
Town of Gorham	6/21/2021	50	0	0	\$2,180	\$0
Town and Village of Victor	6/21/2021	50	0	0	\$2,180	\$0
Town and Village of Victor	6/21/2021	50	0	0	\$1,090	\$0
Town of West Bloomfield	6/21/2021	50	0	0	\$1,090	\$0

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JURISDICTION	DATE	MAGNITUDE (Knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of West Bloomfield	6/21/2021	50	0	0	\$5,450	\$0
Town of Bristol	7/6/2021	51	0	0	\$2,170	\$0
Village of Clifton Springs	7/20/2021	51	0	0	\$1,085	\$0
Town and Village of Phelps	7/20/2021	51	0	0	\$542	\$0
Village of Shortsville	8/11/2021	51	0	0	\$1,083	\$0
City and Town of Geneva	8/29/2021	51	0	0	\$2,165	\$0
City and Town of Geneva	8/29/2021	51	0	0	\$2,165	\$0
Ontario County	12/5/2021	50	0	0	\$2,125	\$0
Ontario County	12/11/2021	56	0	0	\$53,115	\$0
Town of East Bloomfield and Village of Bloomfield	6/16/2022	87	0	0	\$54,716	\$0
City and Town of Canandaigua	6/16/2022	51	0	0	\$2,188	\$0
Town and Village of Victor	8/16/2022	51	0	0	\$514	\$0
Village of Shortsville	8/16/2022	51	0	0	\$514	\$0
Town of South Bristol	8/16/2022	51	0	0	\$514	\$0
Town of South Bristol	8/29/2022	51	0	0	\$2,188	\$0
Town and Village of Naples	8/29/2022	51	0	0	\$2,188	\$0
Town and Village of Phelps	8/29/2022	51	0	0	\$2,188	\$0
Town and Village of Phelps	9/22/2022	51	0	0	\$2,188	\$0
Town and Village of Naples	4/1/2023	51	0	0	\$2,056	\$0
Town of Richmond	4/1/2023	51	0	0	\$514	\$0
Town and Village of Victor	4/1/2023	51	0	0	\$2,056	\$0
City and Town of Geneva	4/1/2023	51	0	0	\$2,056	\$0
City and Town of Geneva	6/26/2023	51	0	0	\$2,056	\$0
City and Town of Geneva	6/26/2023	51	0	0	\$2,056	\$0
Town and Village of Naples	7/20/2023	51	0	0	\$514	\$0
Town and Village of Manchester	7/20/2023	51	0	0	\$2,056	\$0
Town and Village of Manchester	8/7/2023	51	0	0	\$10,000	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>3</b>	<b>6</b>	<b>\$8,409,274</b>	<b>\$207,397</b>

Based on the list of historical wind events for Ontario County, 72 of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more



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robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, Ontario County can expect to experience multiple wind events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Ontario County planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by wind events. Critical facilities are listed in the wind hazard profile of this plan and listed by jurisdiction in Appendix C. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

The U.S. Census data indicates a total of 3,601 (7 percent of total housing stock) manufactured homes located in Ontario County. In addition, 57 percent (approximately 29,775 structures) of the housing structures in Ontario County were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant wind events.

**Table A-32. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Ontario County	3,601	29,775

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8.5 percent of Ontario County’s population live below the poverty level (Table A-33).

**Table A-33. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Ontario County	9,525

Impact of wind events experienced in Ontario County would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$8,616,671 damages (in 2023 dollars) in Ontario County due to wind events. The estimated average annual loss from a wind event is \$127,654.

**Table A-34. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Ontario County	\$8,616,671	\$127,654

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see

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Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

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## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet OC-1: Special Needs Shelters</b>	
<b>Name of Jurisdiction: Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	The County needs to provide assistance to the Red Cross to ensure special needs clients are directed to appropriate facilities in the event of a natural disaster or other similar emergency.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	1. Examine the existing plan for emergency shelter assistance and amend as needed. The County plan would benefit from further development so that in the event of a disaster, the Ontario County Office of Emergency Management and the Office of Public Health can provide the assistance needed to ensure special needs individuals are placed in appropriate shelters.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	OC-1
<b>Action or Project Description:</b>	Establish a small planning committee of key stakeholders (County Planning, Sheriff, Emergency Management, and Public Health) to examine the existing plan and amend as needed.
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Benefits - Having a plan in place will ensure that disaster response shelters are utilized as intended and minimize the potential for harm to special needs individuals in the event of a disaster. Cost – Primarily in kind from County staff, otherwise TBD
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County, Sheriff, Emergency Management and Public Health, Local Enforcement Officials, Committees: Health & Medical, Public Safety
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	County staffing (Planning, Sherriff Emergency Management, Public Health) and budgets
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Emergency Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Defer to Plan Update. No progress has been made on this activity. Working on RFP for consultant to work with County on update to Emergency Management Plan. Due to shortage of volunteers, Red Cross has limited ability to provide emergency shelter support for general or special needs emergency shelters.

## ANNEX A: ONTARIO COUNTY

<b>Previous Action Worksheet OC-2: Landfill Inventory</b>	
<b>Name of Jurisdiction: Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Lack of information regarding closed municipal landfills and the potential for environmental impacts from flooding or other natural disaster.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Develop and maintain a database with comprehensive information regarding all existing and closed landfills in Ontario County
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	OC-2
<b>Action or Project Description:</b>	Locate and collect information about current and former landfills in Ontario County including location, condition, size, proximity to sensitive natural features, etc.
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	The database will allow decision makers to understand the potential for impacts and develop a strategy for mitigation. The existing EPA database does not include information on the numerous smaller municipal landfills that are now closed. Estimated Cost is \$50,000 plus County staff time
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Planning
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	DEC Grants, in kind from county staff
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	None; Ontario County does not have a Comprehensive Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Completed. There is a GIS map of former municipal landfills across the entire county. No related information collected. The County added the former western end of the Seneca-Cayuga Canal north of Seneca Lake to its inventory. The property involved is currently a City of Geneva Park and part of the US 20 and State Rt 5 right-of-way north of Seneca Lake. There is no information on private commercial-licensed or pre-license requirement former landfills or non-commercial disposal area that have been closed. Licensed landfill data can be accessed from the NYS DEC website. The only other known active landfill permit in Ontario County is at Victor Insulators.

# ANNEX A: ONTARIO COUNTY

<b>Previous Action Worksheet</b>	
<b>OC-3: Flood Hazards at Public Works Facilities</b>	
<b>Name of Jurisdiction:</b> <b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Certain public works facilities and utilities experience frequent flooding.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Protection of critical public works facilities from flooding with resiliency to withstand a 500yr flood event
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	OC-3
<b>Action or Project Description:</b>	<ol style="list-style-type: none"> <li>1) Protect or elevate ground-mounted transformers.</li> <li>2) Elevate vulnerable equipment, electrical controls, and other equipment at wastewater treatment plants, potable water treatment plants, and pump stations.</li> <li>3) For sewer lines in the floodplain, fasten and seal manhole covers to prevent floodwater infiltration.</li> <li>4) Protect wells and other utilities</li> </ol>
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	These actions will protect critical facilities from flood damage and allow them to function during hazard events
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	County Public Works
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Municipal budgets, grants
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Annual budgeting process.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	<p>Defer to Plan Update.</p> <p>A. County park facilities within floodplain include seasonal bathroom at Deep Run, Ontario Beach, and Grimes Glen. DPW unaware of vulnerable equipment that would need to be protected or elevated. Most of Three Mills Park is within the floodplain, but there is no significant equipment at the park.</p>

## ANNEX A: ONTARIO COUNTY

	<p>B. The Honeoye Lake Waste Water Treatment Plant is within a floodplain. Recently completed plant improvements include constructing new structures/equipment 2' above the existing estimated 100 year floodplain elevation and floodproofing of other existing structures/equipment to the same elevation using flood planks. The proposed new flood map for the Town of Richmond proposed by FEMA will raise the 100 year flood elevation significantly at the plant.</p> <p>C. 18 pump stations associated with Honeoye Lake County Sewer District or Canandaigua Lake County Sewer District are within a floodplain. Floodproofing pump stations will be considered when pump stations are renovated or reconstructed.</p> <p>D. Sewer districts encompass 2 flow meters and 152 manholes within a current floodplain. Inspecting which of these have floodproof manhole covers. Public Works will provide results of manhole cover inspections when complete.</p> <p>E. The County identified that the Electric Switchgear serving the County's Hopewell Campus is prone to flooding (it is located just adjacent to a drainage way that FEMA has studied with the proposed revision to the flood maps for Ontario County, but upland of the termination of the FEMA study. It has flooded in 2023 and needs to be elevated to protect critical infrastructure and services provided by the County at its Hopewell Campus.</p>
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## ANNEX A: ONTARIO COUNTY

<b>Previous Action Worksheet</b>	
<b>OC-4: Emergency Evacuation Routes</b>	
<b>Name of Jurisdiction:</b> <b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Designated routes to be used for emergency evacuation is needed to ensure county wide emergency evacuation is safe and efficient.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Develop a County emergency evacuation plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	OC-4
<b>Action or Project Description:</b>	As part of the next Emergency Management Plan update, identify emergency evacuation routes and develop an emergency evacuation plan. Identify any other measures needed to make the plan viable.
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	For minimal cost, the establishment of emergency evacuation routes can ensure safe and efficient evacuation in the event of a large-scale emergency. Cost – staff time
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Office of Emergency Management
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2017-18
<b>Potential Fund Sources:</b>	County staff and budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	OC Emergency Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

## ANNEX A: ONTARIO COUNTY

<b>Previous Action Worksheet OC-5: Renewable Energy</b>	
<b>Name of Jurisdiction: Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Production and use of energy from non-renewable sources is more expensive and not sustainable over the long term
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Continued development of renewable energy sources for County facilities.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	OC-5
<b>Action or Project Description:</b>	Perform a comprehensive analysis of County energy usage, quantify the financial and environmental cost and benefits, and make specific recommendations for investing in renewable energy for County buildings and other facilities.
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Minimize chance of power outages during severe weather event. Maintain government continuity of operations. \$25,000 engineer consulting
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Buildings & Grounds
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	NYSERDA, NYS DEC Grants
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	County facilities plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Defer to Plan Update. Update to reflect “Feasibility Analysis for Switching County Buildings and Other Facilities to Renewable Energy”. Consultant currently completing energy use analysis of County Buildings. The study will also estimate investment needed to transition buildings/facilities to renewable energy and make recommendations for phased transition. Consultant currently completing feasibility analyses and recommendations regarding fleet electrification.

## ANNEX A: ONTARIO COUNTY

<b>Previous Action Worksheet</b>	
<b>OC- 6: Erosion &amp; Sediment Control – Emergency Response Toolkit</b>	
<b>Name of Jurisdiction:</b> <b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Need for emergency erosion & sediment control response materials to deal with water quality concerns caused by storm events or infrastructure failures.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	<ol style="list-style-type: none"> <li>1) Create an Emergency Erosion &amp; Sediment Control Response Toolkit</li> <li>2) Provide training to County and municipalities on how to use resources in the toolkit</li> <li>3) Update toolkit as needed to meet local needs</li> </ol>
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	Emergency Erosion & Sediment Control Response Toolkit
<b>Action or Project Description:</b>	Develop an Emergency Erosion & Sediment Control Response Toolkit for use by the municipalities
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	The action will address the growing need for items such as turbidity curtains, dewatering devices and other BMPs to reduce nonpoint source pollutants from entering waterbodies. \$50,000 plus staff time
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Soil & Water Conservation District
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	End of 2019
<b>Potential Fund Sources:</b>	Local funding, state and federal grants
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	None
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Completed. County has a turbidity curtain, 3 dewatering pumps, and mulch filter socks on hand to assist with reducing non-point source run off to lakes. Ontario County Soil and Water Conservation District provides training to County and local municipal personnel on emergency erosion and sediment control best management practices.

## ANNEX A: ONTARIO COUNTY

<b>Previous Action Worksheet</b>	
<b>OC-7: Countywide Resiliency Plan</b>	
<b>Name of Jurisdiction:</b> <b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	A plan is needed to address how communities in Ontario County can more directly address the impacts from climate change.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Development of a Countywide Community Resiliency Plan. This will be done in keeping with the standards and intent of the NYS Countywide Resiliency Planning Grant program.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	Development of a Countywide Community Resiliency Plan
<b>Action or Project Description:</b>	Ontario County would like to develop a broad-based plan that makes it more resilient to the impacts of climate change and other adverse impacts. The plan needs to address protection of critical infrastructure and facilities as well as how communities can become better able to respond to adversity created by the changing climate, economy, etc.
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	Communities will be better prepared to withstand, respond to and recover from adversity more effectively. This will reduce negative impacts initially and minimize the length and cost of recovery.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Planning Department
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	NYS Countywide Resiliency Planning Grant <a href="https://www.dos.ny.gov/funding/rfa-16-lwrp-33/index.html">https://www.dos.ny.gov/funding/rfa-16-lwrp-33/index.html</a>
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	NYS GML 239-d. Ontario County does not currently have a County long-range or comprehensive plans
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Defer to Plan Update. Update to reflect: “improve capacity for a community and its ecosystem to withstand extreme events and quickly recover the interconnected social, economic, and ecological systems structure and function in the aftermath of a disasters.” Ontario County is participating in a Genesee/Finger Lakes project to draft a regional Resiliency Plan. The project has just begun in 2023 and will have sections to address the special needs and considerations for each county.

# ANNEX A: ONTARIO COUNTY

## NEW MITIGATION ACTIONS

ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Flood	Feasibility Study: An existing county bridge in the Village of Victor needs to be evaluated for flood risk. Floodwaters can cause debris to back up at the bridge, exacerbating flooding, damaging the bridge, and causing scour and erosion to embankments at the bridge site. This project protects communities and reduces risk of flooding.	Ontario County will complete a feasibility study for the county bridge located in the Village of Victor to identify the current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the infrastructure to the 0.2% flood level.	Yes	Further review required	18 months	Ontario County Public Works Department	\$2,500,000	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce emergency response and improve egress, reduce loss of function.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
2	2.3	Flood	Drainage Improvements: Inadequate drainage systems along multiple county route locations cause flooding, damage to roadways, and create hazardous driving conditions for motorists. This project protects communities and reduces risk of flooding.	Refine multi-disciplinary strategy to identify vulnerable county highway infrastructure and private properties, opportunities to restore the function of natural systems, expand retention/detention in the upland drainage area, and if appropriate expanding capacity of roadside drainage infrastructure. Numerous locations including CR 1, CR 11, CR 16, CR 18, CR 30, CR, 33, CR 36, CR 37.	No	Further review required	18 months	Ontario County Highway Department	Dependent upon extent of need or damages	By identifying highly vulnerable infrastructures and making necessary improvements to expand drainage capability reduces flood risk and risk of damages and injuries. In addition, this would also reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security

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ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	3.3	Flood	Floodplain permits: Due to a lack of code enforcement authority regarding local development, the County will focus on helping municipalities draft and adopt development regulations to protect and maintain water resources. This project protects communities and reduces risk of flooding.	Encourage local municipalities to adopt floodplain development permit standards higher than minimum FEMA standards. Higher standards to include: <ul style="list-style-type: none"> <li>Requirement to balance on-site cut and fill with resulting no impact to base flood elevation</li> <li>Requirement that elevation of structures above lake flood elevation on properties adjacent to creeks and other drainageways use non-fill means of elevation to minimize drainageway flood impacts to adjacent properties.</li> </ul>	No	N/A	12 Months	Ontario County Planning Department	Staff Time	Reduce flood damages through development restrictions and improved construction requirements in flood-prone areas.	Local Department Budget, Staff time	H	Communication
4	4.2	Flood	Hydraulic (H&H) Watershed Study: The hydraulic capacity at these watersheds may not comply with commonly accepted standards. This project protects communities and reduces the risk of flooding.	Conduct detailed sub-watershed hydraulic assessments and modeling of Black Brook, Paddleford Brook, Mud Creek, Beaver Creek, and other sub-watersheds with repeat flood damage.	No	Further review required	18 months	Ontario County Planning Department in conjunction with local municipalities and other stakeholders	\$1,000,000	Improve risk assessment; Reduce risk of damages or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Communication, Safety/Security
5	4.3	Flood	Downstream Flooding: Extreme rainfall and snowmelt events result in high water volume and	Encourage local municipalities to adopt more protective standards to prevent	No	N/A	2 years	Ontario County Planning Department	Staff Time	Reduce flood damages and risk of injuries or fatalities through regulated	Local Department Budget, Staff time	M	Safety/Security



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ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			stormwater flow rates, which can result in significant amounts of debris (including sediment, rubble, and woody debris) being mobilized and directed to downstream portions of streams. The build-up of debris can compromise the performance of downstream bridges and culverts, jeopardizing these installations (as well as the associated roadways). This project protects communities and reduces risk of flooding.	downstream flooding than those of the NYS Stormwater Design Manual which requires addressing 24 hour 100-year storm. Applies to new buildings and redevelopment of sites that are disturbing greater than 5 acres of soil.						development; Reduce the amount of stormwater runoff in densely developed areas during flood events; Reduce the risk of downstream flooding.			
6	4.3	Flood	Maintenance of stormwater management facilities: Assessment and maintenance of critical stormwater facilities are needed to maintain continuity of operations during and after a hazard event. This action protects infrastructure, reduces cost of reparations, and ensures critical facilities continue to provide services.	Encourage local municipalities to use drainage districts as effective mechanism to raise funds and complete maintenance of stormwater management facilities on private development sites or at a minimum obtain access easements to allow emergency maintenance	No	N/A	18 months	Ontario County Planning	Staff Time	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to residents; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
7	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can	No	N/A	12 months	Ontario County Public Health, Emergency Management and Office for Agencing in partnership	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX A: ONTARIO COUNTY

ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.				with Soil and Water Conservation district and Cooperatives Extension					
8	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snowstorms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, installing warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes, etc.	No	N/A	12 months	Ontario County Public Health and Emergency Management in partnership with Soil and Water Conservation district and Cooperatives Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce	No	N/A	12 months	Ontario County Emergency Management in partnership with Soil and Water Conservation district and Cooperatives	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

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ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			information on mitigation measures residents can employ to reduce damages to their property.	injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.				Extension					
10	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Ontario County Emergency Management in partnership with Soil and Water Conservation district and Cooperatives Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
11	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Ontario County Emergency Management in partnership with Soil and Water Conservation district and Cooperatives Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

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ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	H	Communication
13	3.1	Infestation	Invasive Species and Infestation: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide publicly owned and privately own properties.	No	N/A	36 months	Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

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ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
14	3.1	Drought, Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Landslide, Lightning, Snow Storm, Tornado, Wildfire, Wind	Enhance recording for hazard events: The county will work on enhancing the current record keeping of event history and damages. This project promotes public safety.	Enhance tracking mechanism for natural hazards events in the planning area to provide information needed for grant application cost-benefit analysis.	No	N/A	36 months	Ontario County Public Works	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages. Enhances record keeping and historical event data.	Local Department Budget, Staff time	L	Communication
15	5.4	Extreme Cold, Flood, Ice Storm, Snow Storm, Tornado, Wildfire	Special Needs Shelter: The County needs to provide assistance to the Red Cross to ensure special needs clients are directed to appropriate facilities in the event of a natural disaster or other similar emergency. This project promotes public safety.	Review and amend existing plan for emergency shelter assistance to ensure the County can provide the assistance needed to ensure special needs individuals are placed in appropriate shelters during a disaster event.	Yes	Further review required	5 years	Ontario County, Sheriff, Emergency Management and Public Health, Local Enforcement Officials, Committees: Health & Human Services, Public Safety	Staff Time	Reduce risk to vulnerable residents by providing shelter during extreme weather events.	Local Department Budget, Staff time	M	Safety/Security, Food/Shelter/ Water
16	2.3	Flood	Flood Mitigation at Honeoye Lake Wastewater treatment Plant: Evaluate Flood Mitigation measures at Public Works Facilities to maintain continuity of operations during and after a hazard event due to frequency in flooding. This project protects infrastructure, reduces cost	Recently completed plant improvements include constructing new structures/equipment 2' above the existing estimated 100-year floodplain elevation and floodproofing of other structures/equipment to the same elevation using	Yes	Further review required	Dependent on new proposed flood maps	Ontario County Public Works	\$1,000,000 - 2,000,000	Reduce risk of damages or injuries through flood mitigation at high-risk structures; Reduce the need for emergency response in high-risk areas; Reduce repetitive flood losses/claims; Reduce community	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security

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ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			of reparation, and prevents injury to residents.	flood planks. The proposed new flood map for the Town of Richmond proposed by FEMA will raise the 100-year flood elevation significantly at the plant.						recovery efforts and costs.			
17	1.4	Flood	Flood Mitigation at 18 pump stations: Evaluate Flood Mitigation measures at Public Works Facilities to maintain continuity of operations during and after a hazard event due to frequency in flooding. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Floodproofing pump stations as pump stations require necessary improvements and/or reconstruction associated with Honeoye Lake County Sewer District and Canandaigua Lake County Sewer District.	Yes	Further review required	On-going	Ontario County Public Works	\$1,000,000 - \$2,000,000	Reduce risk of damages or injuries through flood mitigation at high-risk structures; Reduce the need for emergency response in high-risk areas; Reduce repetitive flood losses/claims; Reduce community recovery efforts and costs.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
18	1.4	Flood	Flood Mitigation at 2 flow meters and 152 manholes within Sewer Districts: Evaluate Flood Mitigation measures at Public Works Facilities to maintain continuity of operations during and after a hazard event due to frequency in flooding. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Assess and inspect identified flow meters and manhole covers to compile inventory of critical infrastructure that requires implementation of flood mitigation measures.	Yes	Further review required	On-going	Ontario County Public Works	\$100,000 - \$200,000	Reduce risk of damages or injuries through flood mitigation at high-risk structures; Reduce the need for emergency response in high-risk areas; Reduce repetitive flood losses/claims; Reduce community recovery efforts and costs.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security



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ONTARIO COUNTY PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
19	1.4	Flood	Flood Mitigation at Hopewell Campus: Evaluate Flood Mitigation measures at Public Works Facilities to maintain continuity of operations during and after a hazard event due to frequency in flooding. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Assess and elevate electric switchgear located at Hopewell Campus to protect critical infrastructure and services.	Yes	Further review required	On-going	Ontario County Public Works	\$100,000 - \$200,000	Reduce risk of damages or injuries through flood mitigation at high-risk structures; Reduce the need for emergency response in high-risk areas; Reduce repetitive flood losses/claims; Reduce community recovery efforts and costs.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
20	1.1	Flood, Tornado, Wildfire	Emergency Evacuation Routes: There are limited routes designated to be used for emergency evacuation. This project promotes public safety.	Develop a County Emergency Evacuation Plan by designating routes to be used for emergency evacuation. This action is needed to ensure county wide emergency evacuation is safe and efficient.	No	N/A	18 months	Ontario County Office of Emergency Management	Staff Time	Reduce risk to residents through improved evacuation alternatives; Improve response time for emergency; Provides additional routes through high-risk areas to prevent loss of life and avoid rescue efforts.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security, Communication
21	4.2	Dam Failure, Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and	Renewable Energy: Production and use of energy from non-renewable sources is more expensive and not sustainable over the long term. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Perform a comprehensive analysis of County energy usage, quantify the financial and environmental cost and benefits, and make specific recommendations for investing in renewable energy for County buildings and other facilities.	Yes	Further review required	18 months	Ontario County Buildings and Grounds	\$30,000 for engineering cost	Provide alternative source of power for critical facilities during power outages and ensure continuity of critical services	Local Department Budget; NYSEERDA Clean Energy Communities (CEC) program; DEC Climate Smart Communities	H	Energy (Power/Fuel)

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ONTARIO COUNTY PROPOSED PROJECTS													
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		Utility Failure									(CSC) Certification program HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds		
22	1.2	Dam Failure, Drought, Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Landslide, Lightning, Snow Storm, Tornado, Wildfire, Wind	County-wide Resiliency / Climate Action Plan / Green House Gas Reduction Plan: A plan is needed to address how communities in Ontario County can more directly address the impacts from climate change. This project promotes public safety and resiliency.	Develop a plan that improves capacity for the community and its ecosystem to withstand climate change and extreme hazard events and quickly recover the interconnected social, economic, and ecological systems structure and function in the aftermath of a disasters. Based on assessments, implement necessary improvements to enhance capacity and reduce the effects of climate change and hazard events within the planning area. This action helps protect the community.	No	N/A	On-going	Ontario County Planning Department in conjunction with Genesee/Finger Lakes Planning Council grant project	\$50,000 - \$80,000	Reduce damages at critical facilities; Ensure continuity of critical services during and after event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Communication
23	3.1	Fire, Hazardous Material	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the	No	N/A	36-60 months	Ontario County Emergency Management, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX A: ONTARIO COUNTY

ONTARIO COUNTY PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc. Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns about a potential threat.									
24	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment. Work with local utility providers to educate the public on what they can do to prevent water contamination and/or damage to water infrastructure, such as minimizing phosphorus in run-off, not disposing of hazardous materials in storm drains, clearing out	No	N/A	36-60 months	Ontario County Emergency Management, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
25	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment. Work with local utility providers to educate the public on what they can do to prevent water contamination and/or damage to water infrastructure, such as minimizing phosphorus in run-off, not disposing of hazardous materials in storm drains, clearing out	No	N/A	36-60 months	Ontario County Emergency Management, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
26	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination have been experienced throughout the County.	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment. Work with local utility providers to educate the public on what they can do to prevent water contamination and/or damage to water infrastructure, such as minimizing phosphorus in run-off, not disposing of hazardous materials in storm drains, clearing out	No	N/A	36-60 months	Ontario County Planning Department, Public Health, Water Resources Council, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX A: ONTARIO COUNTY

ONTARIO COUNTY PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				drains, better protection of critical infrastructure throughout the community, etc.									
27	4.2	Flood, Dam Failure	Acquisition Program: County has high-risk flood areas and would like to consider pursuing an acquisition of these areas to reduce risk. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Develop a land acquisition program in flood hazard areas. Acquire and demolish repetitive loss properties.	No	Further review required	12-60 months	County Planning Department	Determined based on land	Eliminate risk of flood damages to high-risk structures and prevent future losses in high-risk flood hazard areas; Reduce downstream impacts associated with development in the floodplain; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
28	4.2	Flood, Landslide unmanaged release, odor proliferation	Ontario County Landfill Mitigation: On November 16 a veneer failure of a cap construction project caused approximately 3 acres of clean soil to migrate downslope. Two gas wells were impacted as the clean material slide at the Ontario County Landfill.	Continue to assess the cause of the veneer failure. All affected soil has been removed from the slide area and all stormwater and gas infrastructure has been re-established.	No	Further review required	On-going	County Planning Department, Director of Sustainability and Solid Waste Management, Casella Waste Services and DEC	No cost to County <sup>26</sup>	Reduce damage and risk of injuries or fatalities; Ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Communication

<sup>26</sup> Per the County's contract with Casella, all costs related to landfill closure (capping) and post closure monitoring (stability of the landfill and associated infrastructure) are to be borne by the landfill operator for the life of the site. This financial obligation is held in bonds and reviewed/updated by NYSDEC and the County on an annual basis.

# ANNEX A: ONTARIO COUNTY

## ONTARIO COUNTY PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
29	4.1	Flood	Local Codes and Plans: The County would like to enhance practices to be at a higher standard than minimum requirement.	Encourage municipalities to go beyond the FEMA standard (< 1 ft. impact of a project on 100-year flood levels) when municipalities adopt the new FEMA model for Flood Damage Prevention Local Laws and related updates to municipal land use regulations (zoning, site plan, and subdivision regulations). For example, no net change in 100-year flood levels, balancing cut and fill within the limits of the 100-year flood plain, etc.	No	N/A	12 months	Ontario County Planning Department	Staff Time	Reduce flood risk and build resiliency.	Local Department Budget	H	Communication

# ANNEX A: ONTARIO COUNTY

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST		Ontario County
PLANS		
Capital Improvements Plan		X
Climate Change Adaptation Plan		In Progress <sup>27</sup>
Comprehensive/Master/Land Use Plan		
Community Wildfire Protection Plan		
Continuity of Operations		X
Drought Contingency Plan		
Economic Development Plan		X
Emergency Management Action Plan		
Emergency Operations Plan		X
Emergency Response Plan and Pandemic Plan Annex		X
Extreme Heat Plan / Protocol		
Evacuation Plan		X
Floodplain Management Plan		
Hazard Mitigation Plan		X
Local Waterfront Revitalization Plan		
Natural Resource Conservation Plan		
Open Space Plan		In Progress
Stormwater Management Plan		
Transportation Plan		In Progress
Watershed Protection Plan		X
POLICIES/ORDINANCES		
Building Codes		X
Construction Site Stormwater Runoff Control		X
Post-Construction Stormwater Management in New Development and Redevelopment		

<sup>27</sup> Regional effort in coordination with Genesee Finger Lakes Regional Planning Council



## ANNEX A: ONTARIO COUNTY

COMMUNITY CAPABILITY CHECKLIST	Ontario County
Critical Infrastructure Protection	
Fire Code	X
Floodplain Ordinance	
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X <sup>28</sup>
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X <sup>29</sup>
Sediment and Erosion Control Measures	NYS rules applicable
Site Plan Review Requirements	
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater / Drainage Ordinance	
Subdivision Regulations	
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Watershed Ordinance	
Winter Road Maintenance	
Zoning Ordinance/Land Use Restrictions	
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X

<sup>28</sup> Public Works/Capital Improvement Plan

<sup>29</sup> Applies to County property only.

## ANNEX A: ONTARIO COUNTY

COMMUNITY CAPABILITY CHECKLIST	Ontario County
Hydrologic/ Hydraulic Studies	X
Mutual Aid Agreement	X
National Flood Insurance Program Participant	
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	X
Warning Systems / Services	X
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	X
Floodplain Administrator	
GIS Specialist	X
Personnel with Hazard Knowledge	X
Planners	X
Public Information Official	X
Resource Development/ Grant Writer	X





**ANNEX B**  
**VILLAGE OF**  
**BLOOMFIELD**



# ANNEX B: VILLAGE OF BLOOMFIELD

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  - Overview ..... 2
  - Population and Demographics ..... 3
  - Population Growth ..... 3
  - Future Development ..... 3
  - Plan Maintenance ..... 4
  - Public Participation ..... 4
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# ANNEX B: VILLAGE OF BLOOMFIELD

## JURISDICTION PROFILE

### OVERVIEW

The Village of Bloomfield is in Ontario County, New York, with a population just over 1,400. The village is in the Town of East Bloomfield and is west of Canandaigua. The village is mostly situated between New York State Route 444 and conjoined US 20/New York State Route 5, New York State Route 64 also joins US-20 west of the village. According to the United States Census Bureau, the village has a total area of 1.4 square miles, all of which is land. Fish creek flows past the north side of the village, a tributary of Ganargua Creek and connects to the north with Erie Canal. Figure B-1 shows the general location of the Village of Bloomfield.

## VILLAGE OF BLOOMFIELD CONTACT INFORMATION

Name: Mark Falsone

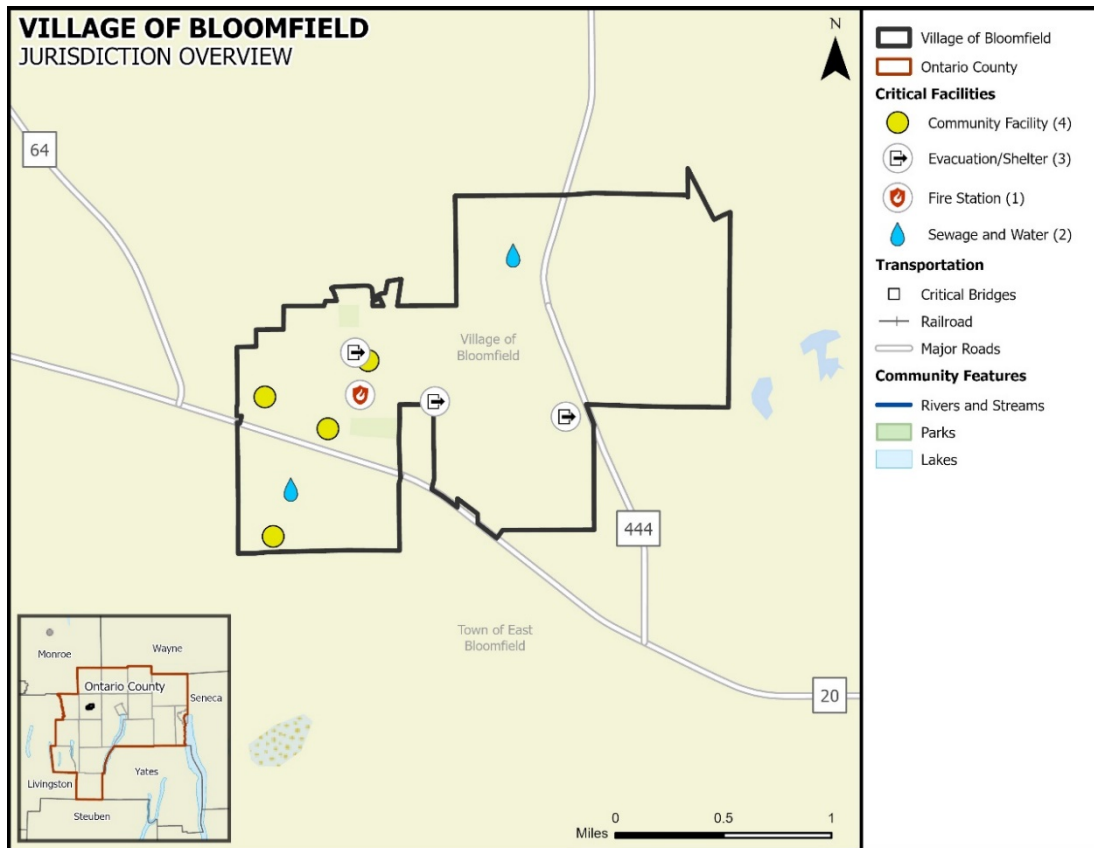
Title: Mayor

Phone: (585) 657-7554

Address: 12 Main St, Bloomfield, NY 14469

Email: [mayor@bloomfield.org](mailto:mayor@bloomfield.org)

Figure B-1. Village of Bloomfield Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

## ANNEX B: VILLAGE OF BLOOMFIELD

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Village of Bloomfield has an official population of 1,277 residents, a 6.2 percent decrease since the 2010 census. Table B-1 summarizes select characteristics of vulnerable or sensitive populations in the Village of Bloomfield using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table B-1. Population Distribution for the Village of Bloomfield**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Village of Bloomfield	1,361	1,435	5.44%	44	265	102

### POPULATION GROWTH

The official 2020 Village of Bloomfield population is 1,277. Overall, the Village of Bloomfield experienced an increase in population between 1990 and 2020 of 100 percent, or an increase by 1,267 residents. Between 2010 and 2020, the Village of Bloomfield experienced a population growth. Table B-2 provides historic change rates in the Village of Bloomfield.

**Table B-2. Population Growth for the Village of Bloomfield, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Village of Bloomfield	-	1,267	1,361	1,277	-	-	-84	-6.20

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Village of Bloomfield might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>



## ANNEX B: VILLAGE OF BLOOMFIELD

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table B-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

**Table B-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table B-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table B-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Village of Bloomfield	Mayor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Village of Bloomfield’s website. A total of 5 surveys were completed for the Village of Bloomfield. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX B: VILLAGE OF BLOOMFIELD

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Village of Bloomfield's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX B: VILLAGE OF BLOOMFIELD

### HAZARD PROFILES

#### DAM FAILURE

The Village of Bloomfield is not profiling dam failure. The Village of Bloomfield does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

## ANNEX B: VILLAGE OF BLOOMFIELD

### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Village of Bloomfield, are provided on a County-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Bloomfield can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Bloomfield, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Village of Bloomfield planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6).

The following critical facilities would be vulnerable to drought events in the Village of Bloomfield:

**Table B-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

The population over 65 in the Village of Bloomfield is estimated at 18 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 309 potentially vulnerable residents in the Village of Bloomfield based on age. In addition, an estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-6).

**Table B-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	265	44	102

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX B: VILLAGE OF BLOOMFIELD

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Village of Bloomfield, are provided on a County-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Bloomfield can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Bloomfield, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Bloomfield planning team members identified the following critical facilities (Table B-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Village of Bloomfield:

**Table B-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

The population over 65 in the Village of Bloomfield is estimated at 18 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 309 potentially vulnerable residents in the Village of Bloomfield) based on age. In addition, an estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-8).

**Table B-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	265	44	102

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX B: VILLAGE OF BLOOMFIELD

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Village of Bloomfield, are provided on a County-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Bloomfield can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Bloomfield, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Bloomfield planning team members identified the following critical facilities (Table B-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Village of Bloomfield:

**Table B-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

The population over 65 in the Village of Bloomfield is estimated at 18 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 309 potentially vulnerable residents in the Village of Bloomfield based on age. In addition, an estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-10).

**Table B-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	265	44	102

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.



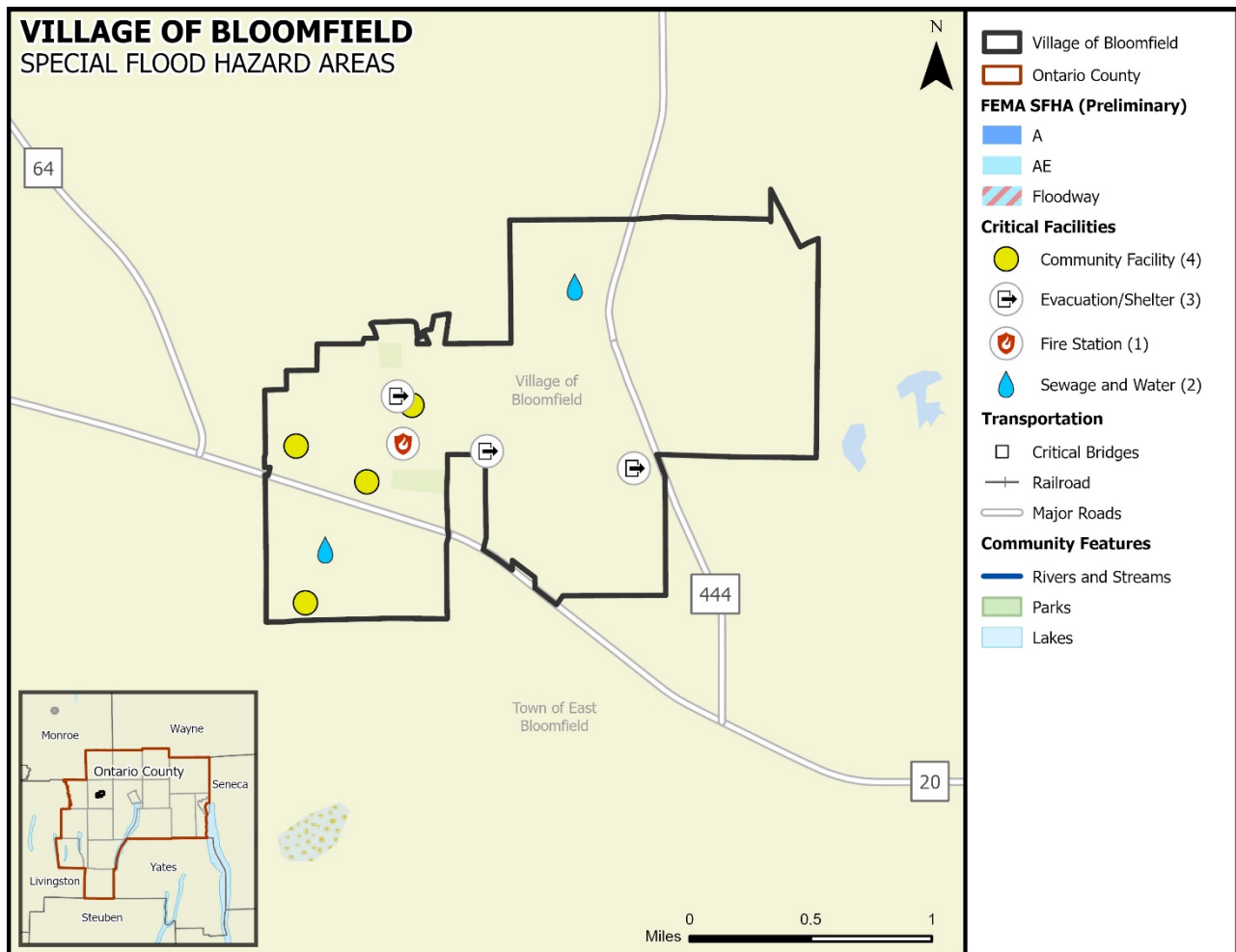
## ANNEX B: VILLAGE OF BLOOMFIELD

### FLOOD

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. The Village of Bloomfield currently has no Special Flood Hazard Areas (SFHA) based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA (Figure B-2).

Figure B-2. Estimated Flood Zones in the Village of Bloomfield<sup>8</sup>



#### HISTORICAL OCCURRENCES

From January 1996 through to August 2023, no flood events were known to have impacted the Village of Bloomfield, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

Based on the list of historical flood events for the Village of Bloomfield, no reported events have occurred since the 2018 Plan.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX B: VILLAGE OF BLOOMFIELD

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Bloomfield can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Bloomfield planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Currently, the Village of Bloomfield has no critical facilities located in the floodplain.

Historic loss estimates due to flood are presented in Table B-11 below.

**Table B-11. Potential Annualized Losses, 1996-2023<sup>9</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Bloomfield	0	\$0	\$0

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-12). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table B-12. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	102

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table B-13 depicts the level of impact for the Village of Bloomfield.

**Table B-13 Village of Bloomfield Impact**

JURISDICTION	IMPACT	DESCRIPTION
Village of Bloomfield	Limited	The Village of Bloomfield could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

<sup>9</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX B: VILLAGE OF BLOOMFIELD

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Village of Bloomfield currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Village of Bloomfield has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Village of Bloomfield as a moderate hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Village of Bloomfield Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table B-14 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table B-14. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Village of Bloomfield	N/A	N/A	Good Standing	0

### *REPETITIVE LOSS*

The Village of Bloomfield currently has no repetitive loss or severe repetitive loss properties.

## ANNEX B: VILLAGE OF BLOOMFIELD

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence across the planning area demonstrates that the Village of Bloomfield is vulnerable to hail events overall. However, there were no reported historical hail events that impacted the Village of Bloomfield between January 1956 through August 2023; those events reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years.

#### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Bloomfield can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Village of Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table B-15. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

The U.S. Census data indicates a total of 22 (3 percent of total housing stock) manufactured homes located in the Village of Bloomfield. In addition, 76 percent (approximately 506 structures) of the housing structures in the Village of Bloomfield were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table B-16. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Village of Bloomfield	22	506

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-17).

## ANNEX B: VILLAGE OF BLOOMFIELD

**Table B-17. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	102

Overall, the total loss estimate of property and crops in the Village of Bloomfield is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Village of Bloomfield can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table B-18. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Bloomfield	\$0	\$0

## ANNEX B: VILLAGE OF BLOOMFIELD

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Village of Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Bloomfield can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Bloomfield, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Bloomfield planning team members identified the following critical facilities (Table B-19) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by natural hazards. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Village of Bloomfield:

**Table B-19. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

The population over 65 in the Village of Bloomfield is estimated at 18 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 309 potentially vulnerable residents in the Village of Bloomfield based on age. In addition, an estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-20).

**Table B-20. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	265	44	102

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.



## ANNEX B: VILLAGE OF BLOOMFIELD

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides.

According to the New York State Hazard Mitigation Plan, the entire population in the Village of Bloomfield is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. The Village of Bloomfield has no reported landslide incidents.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Village of Bloomfield over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Village of Bloomfield.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX B: VILLAGE OF BLOOMFIELD

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There have been no recorded lightning events in the Village of Bloomfield from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team, the probability of occurrence for future lightning events in the Village of Bloomfield is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Village of Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table B-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Village of Bloomfield's population live below the poverty level (Table B-22).

**Table B-22. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	102

With no historical lightning events or losses, the impacts of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Village of Bloomfield due to lightning are considered negligible.

ANNEX B: VILLAGE OF BLOOMFIELD

**Table B-23. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Bloomfield	\$0	\$0

## ANNEX B: VILLAGE OF BLOOMFIELD

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Village of Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Bloomfield can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Bloomfield, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Bloomfield planning team members identified the following critical facilities (Table B-24) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Village of Bloomfield:

**Table B-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

The population over 65 in the Village of Bloomfield is estimated at 18 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 309 potentially vulnerable residents in the Village of Bloomfield based on age. In addition, an estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-25).

**Table B-25. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	265	44	102

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX B: VILLAGE OF BLOOMFIELD

### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

According to the National Centers for Environmental Information (NCEI) Storm Events database. From January 1994 through August 2023, no tornado events are known to have impacted the Village of Bloomfield.

#### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Village of Bloomfield can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Village of Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table B-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 22 manufactured homes are in the Village of Bloomfield (3 percent of total housing stock). In addition, 76 percent (approximately 506 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table B-27. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Bloomfield	506	22

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-28).

## ANNEX B: VILLAGE OF BLOOMFIELD

**Table B-28. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	102

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the Village of Bloomfield would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table B-29. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Village of Bloomfield	\$0	\$0

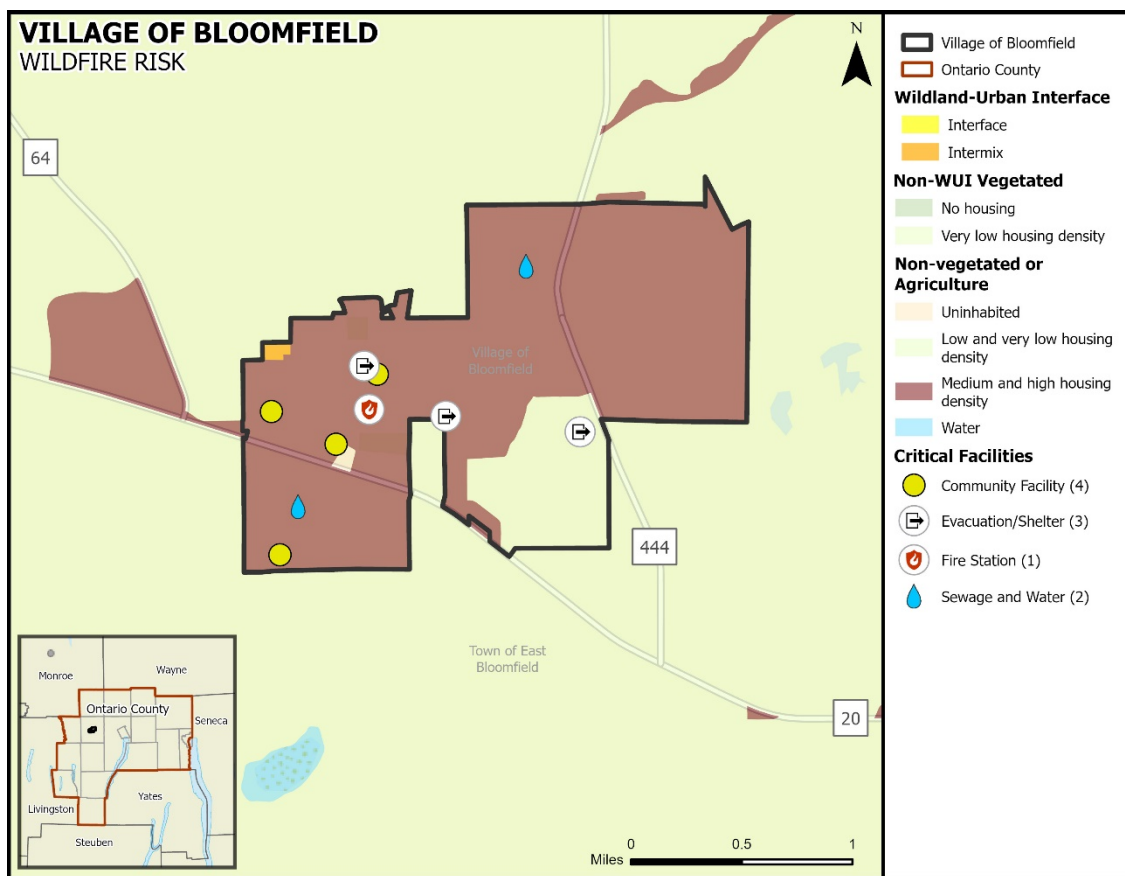
# ANNEX B: VILLAGE OF BLOOMFIELD

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure B-3). The Village of Bloomfield planning area is considered at low risk for wildfires with limited WUI areas.

Figure B-3. Village of Bloomfield Wildland Urban Interface Map<sup>10</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the

<sup>10</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)



## ANNEX B: VILLAGE OF BLOOMFIELD

Village of Bloomfield, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

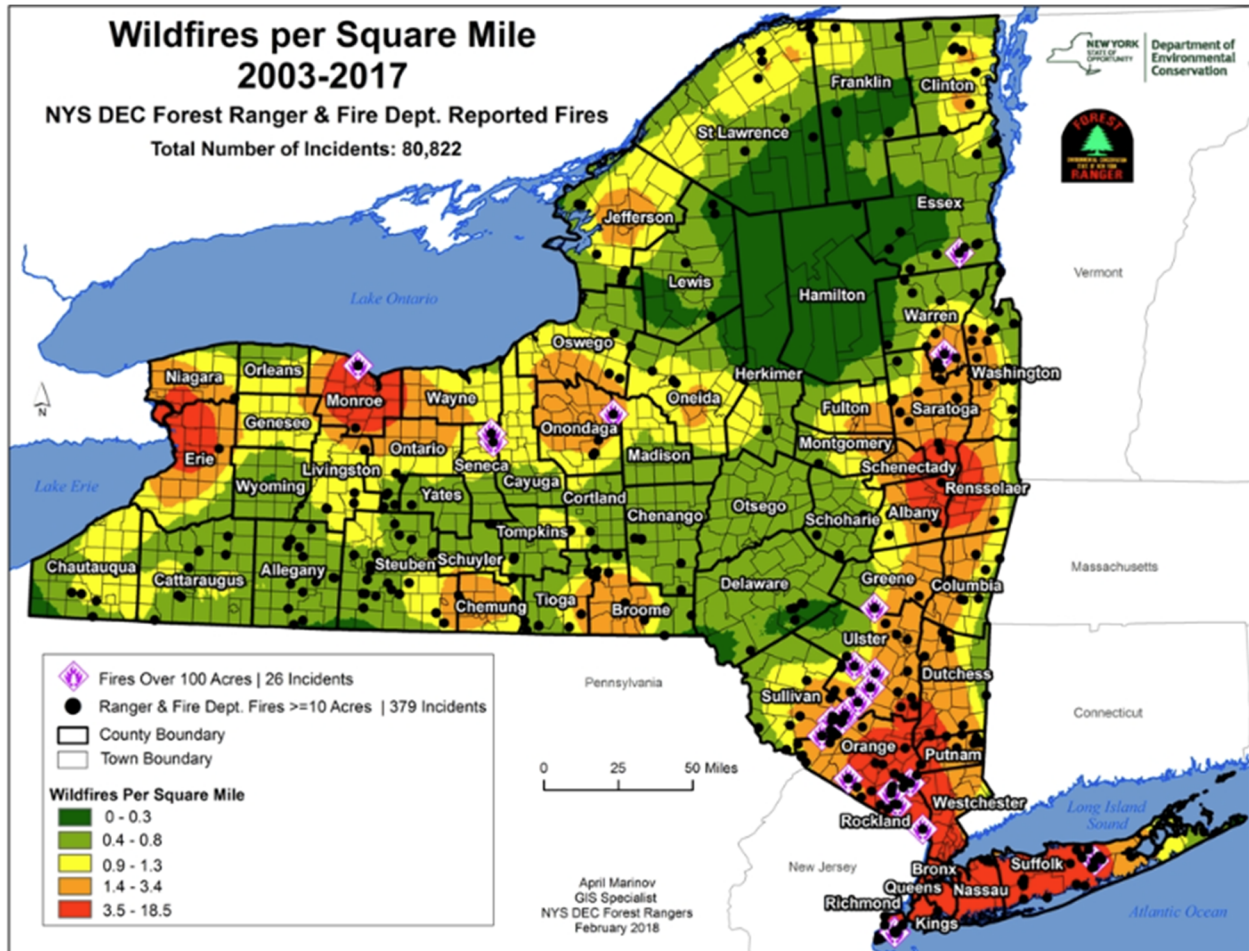
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure B-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, typically burning less than 10 acres.

## ANNEX B: VILLAGE OF BLOOMFIELD

Figure B-4. Wildfires per Square Mile, 2003-2017



### *HISTORICAL OCCURRENCES*

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

### *VULNERABILITY AND IMPACT*

The Village of Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

# ANNEX B: VILLAGE OF BLOOMFIELD

**Table B-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

For the Village of Bloomfield, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX B: VILLAGE OF BLOOMFIELD

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, nine wind events are known to have occurred in the Village of Bloomfield. Table B-31 presents information on known historical events impacting the Village of Bloomfield.

**Table B-31. Historical Wind Events, 1956-2023<sup>11</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Village of Bloomfield	1/9/2008	56	0	0	\$21,047	\$0
	5/3/2012	50	0	0	\$19,331	\$0
	6/12/2015	50	0	0	\$12,411	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	9/21/2018	50	0	0	\$1,173	\$0
	9/21/2018	50	0	0	\$587	\$0
	9/21/2018	50	0	0	\$9,386	\$0
	6/21/2021	50	0	0	\$2,180	\$0
	6/16/2022	87	0	0	\$54,716	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$130,437</b>	<b>\$0</b>

Based on the list of historical wind events for the Village of Bloomfield, five of the reported events have occurred since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Bloomfield can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Village of Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

<sup>11</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX B: VILLAGE OF BLOOMFIELD

**Table B-32. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Bloomfield	4 Community Facilities, 3 Evacuation Shelters, 1 Fire Station, 1 Residential Community Facility, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 22 manufactured homes are located in the Village of Bloomfield (3 percent of total housing stock). In addition, 76 percent (approximately 506 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant wind events.

**Table B-33. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Bloomfield	506	22

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Village of Bloomfield’s population live below the poverty level (Table B-34).

**Table B-34. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Bloomfield	102

Impact of wind events experienced in the Village of Bloomfield would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$130,437 damages (in 2023 dollars) in the Village of Bloomfield due to wind events. The estimated average annual loss from a wind event is \$1,932.

**Table B-35. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Bloomfield	\$130,437	\$1,932

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## ANNEX B: VILLAGE OF BLOOMFIELD

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.



## ANNEX B: VILLAGE OF BLOOMFIELD

### PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>VB-1: Critical Facility Flood Risk</b>	
<b>Name of Jurisdiction:</b>	Village of Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood risk to some critical facilities - Sewage Treatment Plant Structure - Flood History - flooded in the past, frequent flooded area, electric has failed interrupting service in the past (plant upgrade in progress)
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Multi-phase upgrades to the existing treatment plant and associated property to provide capacity to handle flows from 500yr flood events.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VB-1
<b>Name of Action or Project:</b>	VB-1
<b>Action or Project Description:</b>	An engineering firm was retained by the Village to evaluate the existing treatment plant and propose recommendations for necessary upgrades. The work will be completed in multiple phases.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Phase I – upgrades currently pending include new pumps, new pumps to storm tanks, new piping, and new filters. These improvements will increase the efficiency of the plant and make it more capable of handling stormwater inflow during a severe weather event.
<b>Estimated Cost:</b>	Estimated cost of project is 2.3 million dollars.
<b>Other Factors Considered:</b>	Phase II – upgrades proposed include operational upgrades. Work has yet to be awarded.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	Tax Levy
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Public Works Long-Term Plan, Floodplain Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed and Defer to Plan Update. Phase I was completed in 2018. Phase II had bids opening in late September of 2023.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX B: VILLAGE OF BLOOMFIELD

<b>Previous Action Worksheet VB-2: Storm Water Management</b>	
<b>Name of Jurisdiction:</b>	Village of Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Stormwater concerns/risk of severe storms - address existing drainage problem on Maple Street; Identify and address sources of stormwater infiltration into the sanitary sewer system. Issues with damaged pipes in some places. Seek funding for implementation.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Maintenance to existing railroad bed to facilitate proper stormwater flow.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VB-2
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Maintenance to existing railroad bed to facilitate proper stormwater flow.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Maintenance of the existing/ abandoned railroad bed is required to facilitate proper drainage and stormwater flow around Maple Street. Work can be completed by Village DPW staff. Landowners will need to be contacted to get the appropriate approvals since much of the necessary work would occur outside of the right of way.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village DPW
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	Ongoing – within the next year
<b>Potential Fund Sources:</b>	Tax Levy
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Work scope is included in the Village DPW budget and associated workload.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. On-going project.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX B: VILLAGE OF BLOOMFIELD

<b>Previous Action Worksheet</b>	
<b>VB-3: Water Supply Protection</b>	
<b>Name of Jurisdiction:</b>	Village of Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Protect public water supply - wells and springs could be better regulated and protected; prevention of cross-connections to the public water system; Well head protection is a priority.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Review of wellhead protection areas in compliance with the Village's Zoning Ordinance and Comprehensive Plan.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VB-3
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Review of wellhead protection areas in compliance with the Village's Zoning Ordinance and Comprehensive Plan.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Two wellhead protection areas are identified within the context of the Village's zoning regulations and comprehensive plan.
<b>Estimated Cost:</b>	Evaluation of proposed uses within these areas are reviewed by the zoning officer to determine compatibility.
<b>Other Factors Considered:</b>	Allowed uses are strictly regulated to protect water quality within the area. Continued project reevaluation will occur as projects arise.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	The salary of the zoning officer and municipal boards are included in the municipal budget. Project review is within the scope of zoning officer's responsibilities.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Zoning Ordinance and Comprehensive Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update. On-going project.

## ANNEX B: VILLAGE OF BLOOMFIELD

<b>Previous Action Worksheet</b>	
<b>VB-4: Stream/Stream Bank Protection</b>	
<b>Name of Jurisdiction:</b>	Village of Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flooding/severe storm concerns and risk - stream/stream bank improvements - coordinated efforts to clear streams of debris and alleviate flooding.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Identification of areas of concern.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VB-4
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	The Village will work to identify specific areas of concern in a Phase 1 study.
<b>Summary of Evaluation Benefits (losses avoided):</b>	The Village will work to identify specific areas of concern and coordinate the clearing of debris to help alleviate flood risk. Property owners within the identified areas of concern will need to be contacted for access permission as some of the necessary work may occur outside of the existing right of ways.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
	\$20,000 for study
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village DPW
<b>Action/Project Priority:</b>	Low
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Tax Levy and/or Homeowner Contribution
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Floodplain Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed. Village provides continual steam bank maintenance.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX B: VILLAGE OF BLOOMFIELD

## NEW MITIGATION ACTIONS

VILLAGE OF BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Acquire generator for new Village Hall Office: During severe hazard events the Town Hall serves as the Emergency Operations Center (EOC) as well. Power outages are likely and render the facility useless. Within the Village Hall Office, there are lights, computers, heat, communications, etc., which all rely on electricity. This action helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Acquire and install generators with hard wired quick connections at new Village Hall facility.	Yes	Further review required	24 months	Village Board	\$1,000,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Energy (Power/Fuel)
2	4.2	Flood	Critical Facility Flood Risk Phase II: There is potential flood risk to the Village Treatment Plant Structure which has had a frequency of flooding in the area in which electric has failed interrupting service. This action protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Implement proposed upgrades operational upgrades identified in Phase I evaluation of treatment plant which includes but is not limited to new pumps, new pumps to storm tanks, new piping, and new filters, and any additional upgrades recommended.	Yes	Further review required	September 2023 – On-going	Village Board	\$2,300,000	Increase the efficiency capability to enhance stormwater inflow during a severe weather event. Ensures continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
3	5.4	Flood	Stormwater Drainage Improvement – Maple Street: Frequency in stormwater flooding requiring maintenance of the existing/ abandoned railroad bed is required to	Identify and address sources of stormwater infiltration into the sanitary sewer system. Implement necessary maintenance to facilitate	No	Further review required	On-going	Village Public Works	\$100,000 and Staff Time	Reduce risk of damages or injuries through flood mitigation at high-risk structures; Reduce the need for	Local Department Budget; HMGP, BRIC, CDBG, PA	H	Safety/Security

# ANNEX B: VILLAGE OF BLOOMFIELD

VILLAGE OF BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			facilitate proper drainage and stormwater flow around Maple Street. This action protects the community and reduces risk of flooding.	proper stormwater flow. Maintenance of the existing/ abandoned railroad bed is required to facilitate proper drainage and stormwater flow around Maple Street. Continue assessment and review wellhead protection areas to ensure compliance with Village ordinance. Implement necessary improvements to wells and springs to ensure regulation, protection and prevent cross-connections to the public water system.						emergency response in high-risk areas; Reduce repetitive flood losses/claims; Reduce community recovery efforts and costs	406 (when applicable) local bonds		
4	4.2	Drought, Flood, Water Supply Contamination	Water Supply Protection – Well Head: The public water supply could be better regulated and protected in an effort to prevent of cross-connections to the public water system; Well head protection is a priority.	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	Yes	Further review required	On-going	Village Board and Zoning Department	Staff Time	Reduce risk of flood water contamination; Reduce risk of surface water infiltration and sewage backup; Ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
5	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.		No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX B: VILLAGE OF BLOOMFIELD

VILLAGE OF BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
6	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX B: VILLAGE OF BLOOMFIELD

VILLAGE OF BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
8	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
10	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best	No	N/A	36 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX B: VILLAGE OF BLOOMFIELD

VILLAGE OF BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).									
11	3.1	Infestation	Invasive Species and Infestation: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide public and privately owned properties.	No	N/A	36 months	Village Board, and Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
12	3.3	Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Village Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication

# ANNEX B: VILLAGE OF BLOOMFIELD

VILLAGE OF BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
13	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Village Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Village Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
15	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Village Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX B: VILLAGE OF BLOOMFIELD

VILLAGE OF BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
16	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Village Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
17	3.3	Fire	Inspections for public facilities: Ensure that facilities are up to code to reduce the risk of structural fires.	Complete annual and bi-annual inspections are required on all public facilities to ensure fire and carbon monoxide are functional based on local code chapter 63.	No	N/A	Annual and Bi-Annual	Code Enforcement Officer	Staff Time	Reduce risk damages and loss of life.	Local Budget	M	Communication, Safety/Security
18	3.3	Fire	Code requirement for new development: Ensure there is a limited risk to new development for structural fires.	Adopt a code that requires new development to meet all state and local fire code regulations	No	N/A	12-24 months	Village Board, Code Enforcement Officer	Staff Time	Reduce risk damages and loss of life.	Local Budget	M	Communication, Safety/Security

## ANNEX B: VILLAGE OF BLOOMFIELD

### CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Village of Bloomfield
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	X
Economic Development Plan	
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	X
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	X
Stormwater Management Plan	X
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX B: VILLAGE OF BLOOMFIELD

COMMUNITY CAPABILITY CHECKLIST	Village of Bloomfield
Fire Code	
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX B: VILLAGE OF BLOOMFIELD

COMMUNITY CAPABILITY CHECKLIST	Village of Bloomfield
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	X
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	
Public Information Official	
Resource Development/ Grant Writer	





# ANNEX C TOWN OF BRISTOL



ANNEX C: TOWN OF BRISTOL

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# ANNEX C: TOWN OF BRISTOL

## JURISDICTION PROFILE

### OVERVIEW

The Town of Bristol is in Ontario County, New York, with a population just under 2,200. The town is in the western half of the county, southwest of the City of Canandaigua. According to the United State Census Bureau, the town has a total of 36.8 square miles of which 36.7 square miles is land and 0.04 square miles is water. U.S. Route 20A passes through the town. New York State Route 64 is a north-south highway in the southeastern part of the town. Mud Creek is an important stream in the Town of Bristol. Figure C-1 shows the general location of the Town of Bristol.

## TOWN OF BRISTOL CONTACT INFORMATION

Name: Bob Green

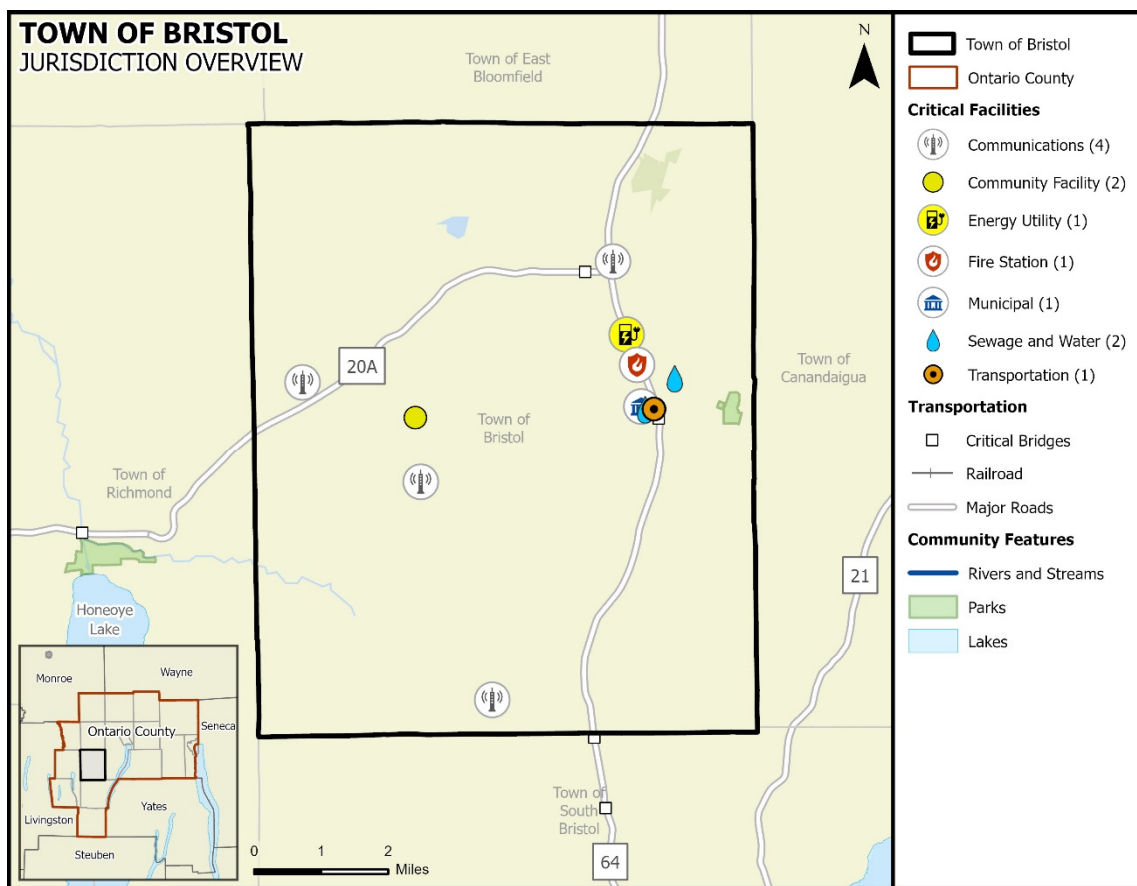
Title: Town Supervisor

Phone: (585) 229-2400, ext. 6

Address: 6740 County Road 32,  
Canandaigua, NY 14424

Email: [supervisor@townofbristol.org](mailto:supervisor@townofbristol.org)

Figure C-1. Town of Bristol Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

## ANNEX C: TOWN OF BRISTOL

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Bristol has an official population of 2,284 residents, a 1.3 percent decrease since the 2010 census. Table C-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Bristol using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table C-1. Population Distribution for the Town of Bristol**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Bristol	2,315	2,195	-5.18%	60	490	156

### POPULATION GROWTH

The official 2020 Town of Bristol population is 2,284. Overall, the Town of Bristol experienced an increase in population between 1990 and 2020 of 10.3 percent, or an increase by 244 residents. Between 2010 and 2020, the Town of Bristol experienced a population decline. Table C-2 provides historic change rates in the Town of Bristol.

**Table C-2. Population Growth for the Town of Bristol, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Bristol	2,071	2,421	2,315	2,284	244	10.3	-31	-1.3

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Bristol might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX C: TOWN OF BRISTOL

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table C-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

**Table C-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table C-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table C-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Bristol	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Bristol’s website. A total of 8 surveys were completed for the Town of Bristol. Additional

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX C: TOWN OF BRISTOL

meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Bristol's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX C: TOWN OF BRISTOL

### HAZARD PROFILES

#### DAM FAILURE

The Town of Bristol is not profiling dam failure. The Town of Bristol does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.



## ANNEX C: TOWN OF BRISTOL

### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Bristol can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Bristol, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Bristol planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of Bristol:

**Table C-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

The population over 65 in the Town of Bristol is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 550 potentially vulnerable residents in the Town of Bristol based on age. In addition, an estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-6).

**Table C-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Bristol	490	60	156

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX C: TOWN OF BRISTOL

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Bristol can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Bristol, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Bristol planning team members identified the following critical facilities (Table C-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Town of Bristol.

**Table C-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

The population over 65 in the Town of Bristol is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 550 potentially vulnerable residents in the Town of Bristol based on age. In addition, an estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-8).

**Table C-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Bristol	490	60	156

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX C: TOWN OF BRISTOL

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Bristol can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Bristol, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Bristol planning team members identified the following critical facilities (Table C-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of Bristol:

**Table C-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

The population over 65 in the Town of Bristol is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 550 potentially vulnerable residents in the Town of Bristol based on age. In addition, an estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-10).

**Table C-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Bristol	490	60	156

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

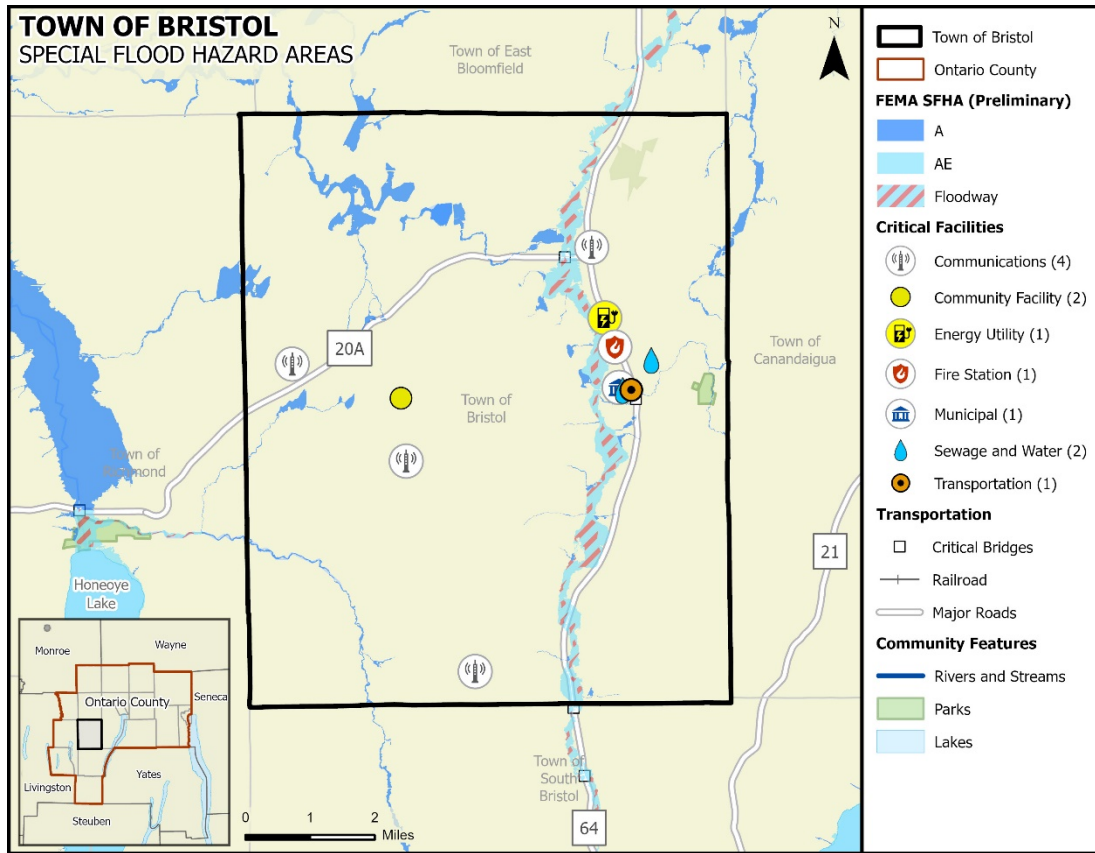
# ANNEX C: TOWN OF BRISTOL

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Bristol, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Bristol, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure C-2.

**Figure C-2. Estimated Flood Zones in the Town of Bristol<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table C-11 provides the historical occurrences of flood events for the Town of Bristol according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, four flood events were known to have impacted the Town of Bristol, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX C: TOWN OF BRISTOL

**Table C-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Bristol	6/3/2007	0	0	\$106,612	\$0
	7/13/2010	0	0	\$20,378	\$0
	5/16/2014	0	0	\$186,741	\$0
	8/19/2021	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$313,731</b>	

Based on the list of historical flood events for the Town of Bristol, one of the reported events has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Bristol can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Bristol planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. There are no critical facilities in the Town of Bristol located in the floodplain. Historic loss estimates due to flood are presented in Table C-12 below.

**Table C-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Bristol	4	\$313,731	\$11,408

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table C-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Bristol	156

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX C: TOWN OF BRISTOL

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table C-14 depicts the level of impact for the Town of Bristol.

**Table C-14. Town of Bristol Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Bristol	Limited	The Town of Bristol could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Bristol currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Bristol has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Bristol as a moderate hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Bristol Code Zoning Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table C-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table C-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Bristol	1/14/2016	7/7/2004	Good Standing	0

### *REPETITIVE LOSS*

The Town of Bristol currently has no repetitive loss or severe repetitive loss properties.



# ANNEX C: TOWN OF BRISTOL

## HAIL

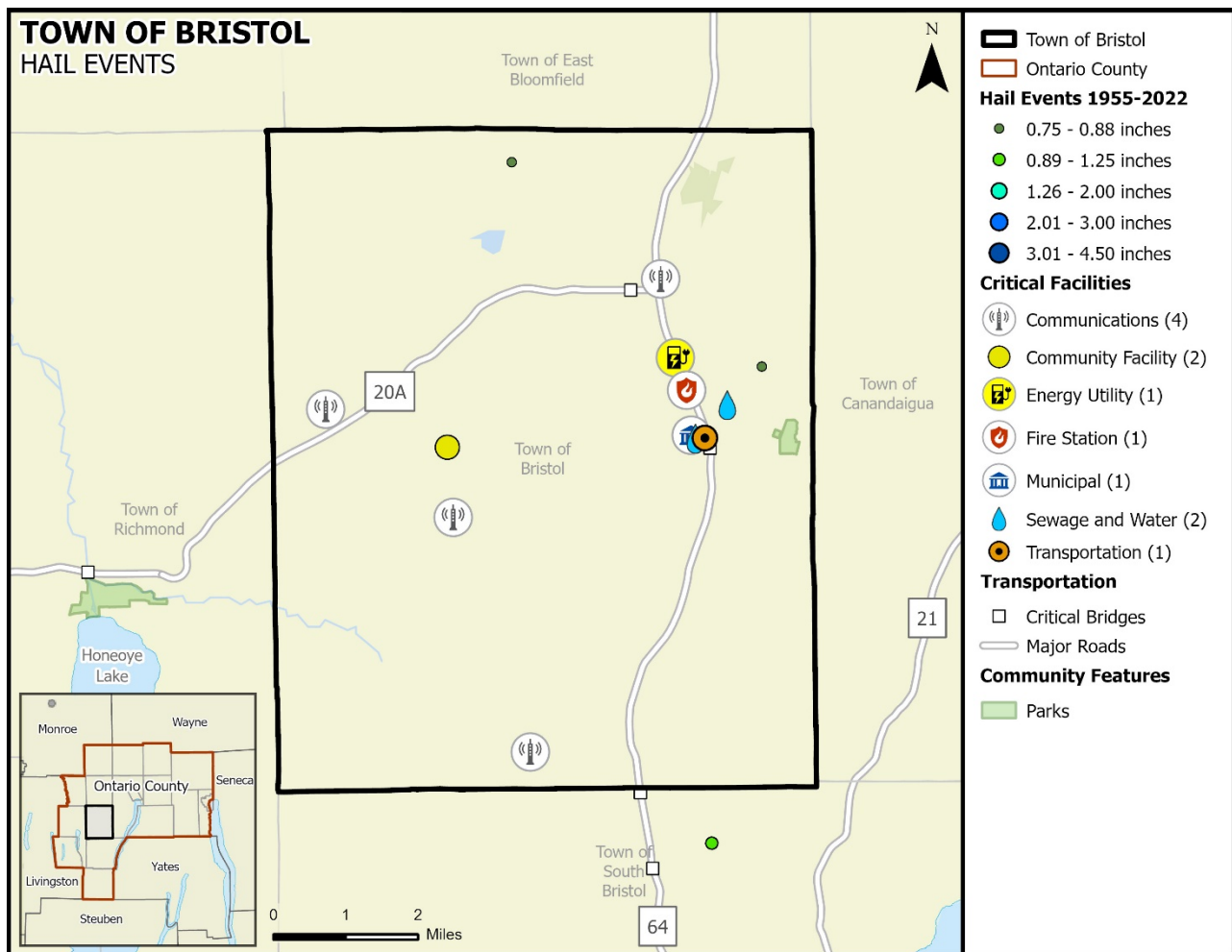
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure C-3 demonstrates that the Town of Bristol is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table C-16. A total of two reported historical hail events impacted the Town of Bristol between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of Bristol with latitude and longitude available were plotted (Figure C-3).

**Figure C-3. Historical Hail Events, 1956-2023<sup>11</sup>**



<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX C: TOWN OF BRISTOL

**Table C-16. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Bristol	9/11/2011	0.75	0	0	\$0	\$0
	8/01/2011	0.88	0	0	\$0	\$0
<b>TOTALS</b>		<b>(Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>

Based on the list of historical hail events for the Town of Bristol, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Bristol can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table C-17. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

The U.S. Census data indicates a total of 83 (7 percent of total housing stock) manufactured homes located in the Town of Bristol. In addition, 44 percent (approximately 486 structures) of the housing structures in the Town of Bristol were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table C-18. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of Bristol	83	486

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX C: TOWN OF BRISTOL

stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-19).

**Table C-19. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Bristol	156

Overall, the total loss estimate of property and crops in the Town of Bristol is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Town of Bristol can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table C-20. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Bristol	\$0	\$0

## ANNEX C: TOWN OF BRISTOL

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Bristol can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Bristol, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Bristol planning team members identified the following critical facilities (Table C-21) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of Bristol:

**Table C-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

The population over 65 in the Town of Bristol is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 550 potentially vulnerable residents in the Town of Bristol based on age. In addition, an estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-22).

**Table C-22. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Bristol	490	60	156

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX C: TOWN OF BRISTOL

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides.

According to the New York State Hazard Mitigation Plan, the entire population in the Town of Bristol is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides. Both landslide incident reports (Section 12) are located outside of the Town of Bristol.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Bristol over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Bristol.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX C: TOWN OF BRISTOL

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There have been no recorded lightning events in the Town of Bristol from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Bristol is considered "Highly Likely", or an event probable in the next year. The planning team indicated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Town of Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table C-23. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Bristol's population live below the poverty level (Table C-24).

**Table C-24. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Bristol	156

With no historical lightning events or losses, the impacts of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Bristol due to lightning are considered negligible.



ANNEX C: TOWN OF BRISTOL

**Table C-25. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Bristol	\$0	\$0

## ANNEX C: TOWN OF BRISTOL

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the county, including the Town of Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Bristol can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Bristol, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Bristol planning team members identified the following critical facilities (Table C-26) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of Bristol:

**Table C-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

The population over 65 in the Town of Bristol is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 550 potentially vulnerable residents in the Town of Bristol based on age. In addition, an estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-27).

**Table C-27. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Bristol	490	60	156

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX C: TOWN OF BRISTOL

### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Table C-28 provides the historical occurrences of tornado events for the Town of Bristol according to the National Centers for Environmental Information (NCEI) Storm Events database. From January 1994 through August 2023, 1 tornado event is known to have impacted the Town of Bristol, based upon NCEI records.

**Table C-28. Historical Tornado Events, 1994-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Bristol	8/29/2009	EF0	0	0	\$686,108	\$0
TOTALS		(MAX EXTENT)	0	0	\$686,108	\$0

Based on the list of historical tornado events for the Town of Bristol, there have been no recorded events since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Bristol can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table C-29. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 83 manufactured homes are in the Town of Bristol (7 percent of total housing stock). In addition, 44

<sup>13</sup> Historical events are reported from January 1994 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX C: TOWN OF BRISTOL

percent (approximately 486 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table C-30. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Bristol	486	83

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-31).

**Table C-31. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Bristol	156

The total loss estimate due to tornado events is \$686,108 (in 2023 dollars), having an approximate annual loss estimate of \$23,659. Based on historic damages and best available data the impact of a tornado event on the Town of Bristol would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table C-32. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Bristol	\$686,108	\$23,659

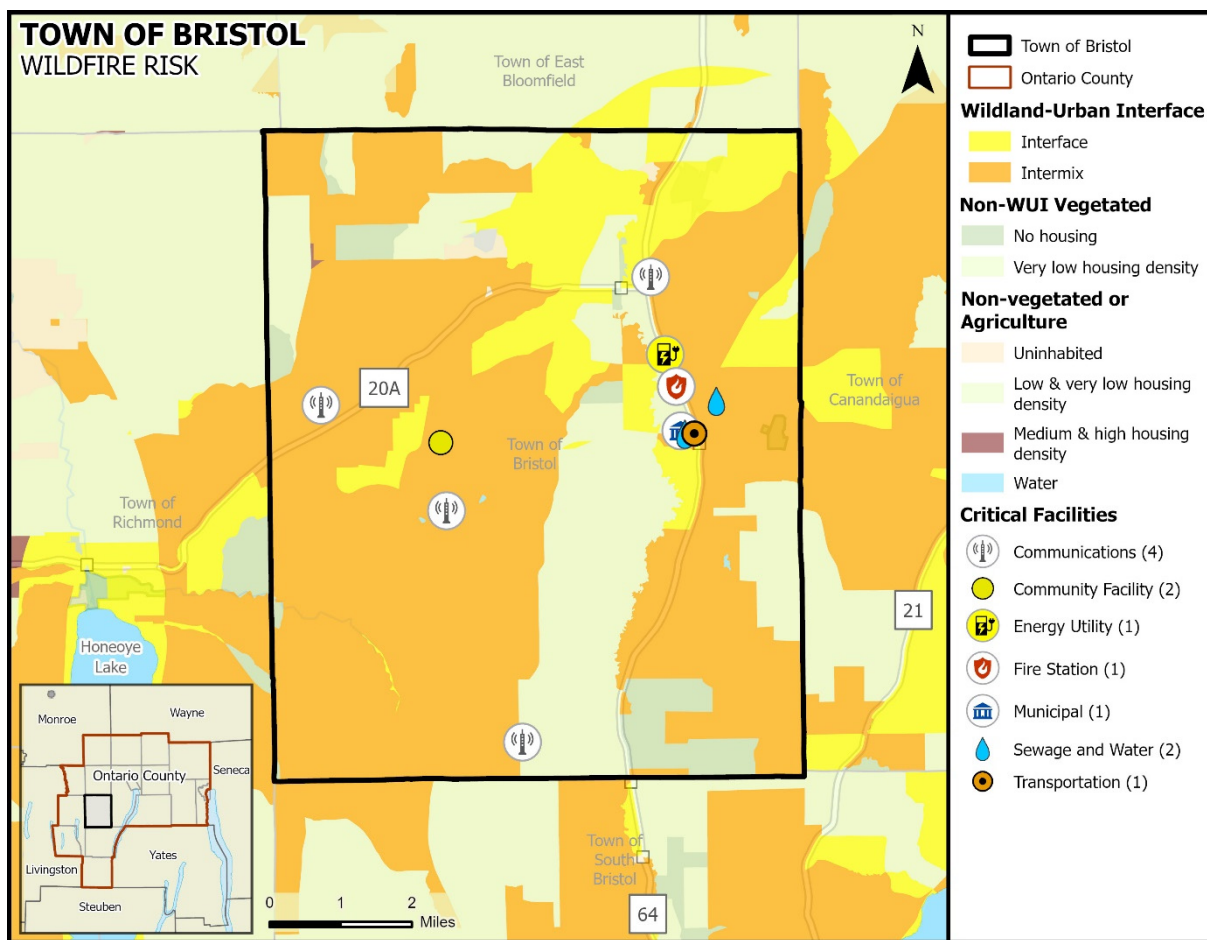
# ANNEX C: TOWN OF BRISTOL

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure C-4). The Town of Bristol planning area is considered at low risk for wildfires with limited WUI areas.

**Figure C-4. Town of Bristol Wildland Urban Interface Map<sup>14</sup>**



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>14</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX C: TOWN OF BRISTOL

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Bristol, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

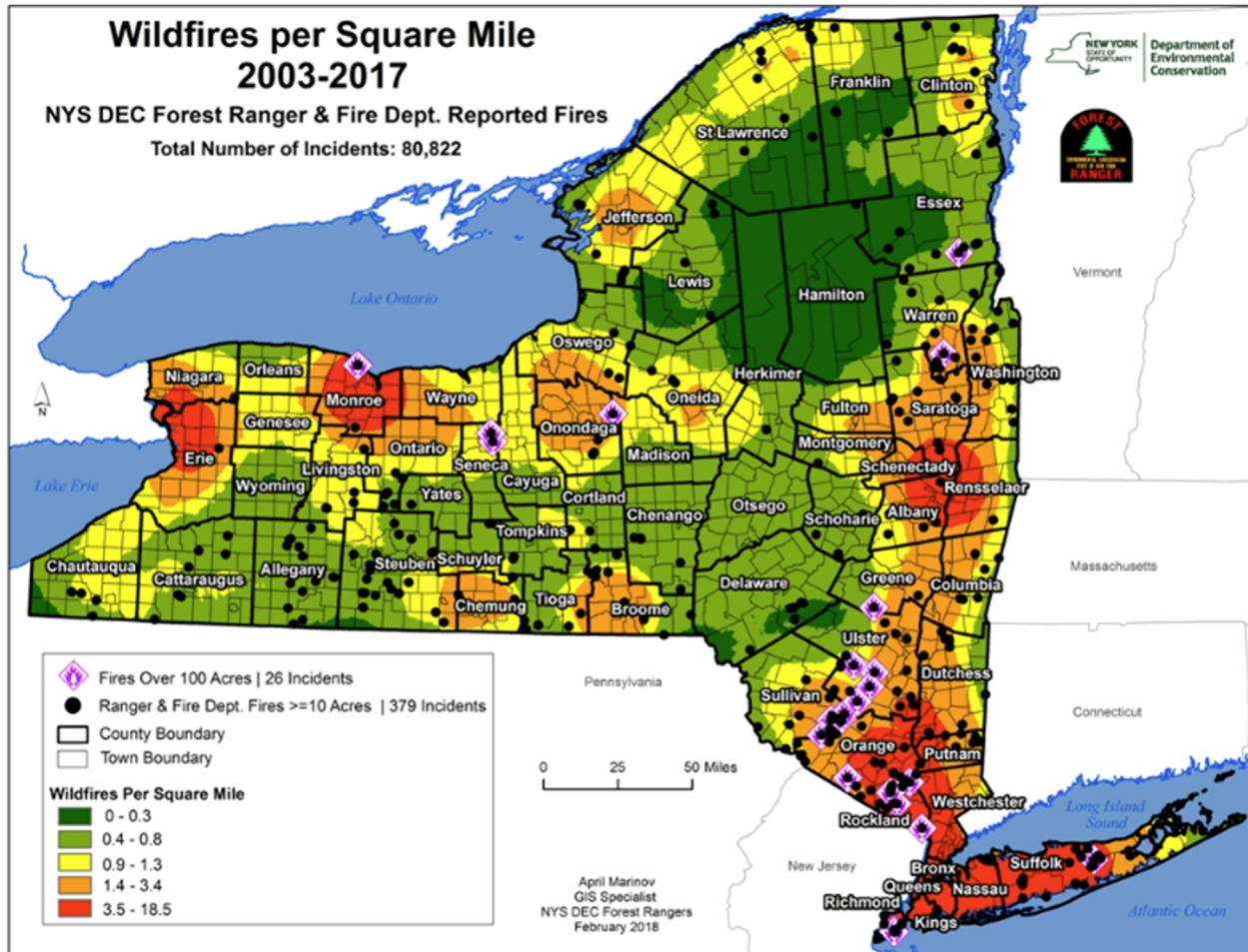
The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure C-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.



# ANNEX C: TOWN OF BRISTOL

Figure C-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including the Town of Bristol, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

## ANNEX C: TOWN OF BRISTOL

**Table C-33. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

For the Town of Bristol, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX C: TOWN OF BRISTOL

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, 10 wind events are known to have occurred in the Town of Bristol. Table C-34 presents information on known historical events impacting the Town of Bristol.

**Table C-34. Historical Wind Events, 1956-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Bristol	7/15/1995	Unknown	0	0	\$29,132	\$0
	8/16/2007	50	0	0	\$11,396	\$0
	6/13/2008	50	0	0	\$20,303	\$0
	5/3/2012	50	0	0	\$19,331	\$0
	6/23/2013	50	0	0	\$12,684	\$0
	6/12/2015	50	0	0	\$18,616	\$0
	5/29/2016	50	0	0	\$22,192	\$0
	5/29/2016	50	0	0	\$18,493	\$0
	10/15/2017	50	0	0	\$14,409	\$0
	7/6/2021	51	0	0	\$2,170	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$168,726</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of Bristol, one of the reported events has occurred since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Bristol can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range

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<sup>15</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX C: TOWN OF BRISTOL

of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table C-35. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Bristol	4 Communication Facilities, 2 Community Facilities, 1 Recreation/Park Community Facility, 1 Energy utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities, 1 Bridge, 1 Fuel Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 83 manufactured homes are located in the Town of Bristol (7 percent of total housing stock). In addition, 44 percent (approximately 486 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant wind events.

**Table C-36. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Bristol	486	83

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Bristol’s population live below the poverty level (Table C-37).

**Table C-37 Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Bristol	156

Impact of wind events experienced in the Town of Bristol would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$168,726 damages (in 2023 dollars) in the Town of Bristol due to wind events. The estimated average annual loss from a wind event is \$2,500.

**Table C-38. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Bristol	\$168,726	\$2,500

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see

## ANNEX C: TOWN OF BRISTOL

Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX C: TOWN OF BRISTOL

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TB-1: Storm Water Management – culvert replacement and ditch cleaning</b>	
<b>Name of Jurisdiction:</b>	Town of Bristol
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flooding/severe storm concerns and risk - significant flooding in the past. Drainage Issues - May/2014 Flooding stormwater concerns; roads have flooded; needed culvert replacement, ditch cleaning, removal of tree and brush debris.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Culvert Replacement Ditching Tree and Brush Removal
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TB-1: Stormwater management – culvert replacement and ditch cleaning
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Culvert replacement with larger culverts Ditch cleaning and tree and brush removal by culverts o help them accommodate flows from a 500yr flood event.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Road and culvert damage avoided. Potential cost associated with culvert
<b>Estimated Cost:</b>	replacement= \$8K-10K
<b>Other Factors Considered:</b>	Other factors include outreach to impacted property owners.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Highway Department
<b>Action/Project Priority:</b>	High / Ongoing
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Highway budget and FHWA grants if available
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Highway Maintenance Schedule.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

## ANNEX C: TOWN OF BRISTOL

<b>Previous Action Worksheet</b>	
<b>TB-2: Flood Damage Prevention Law Review/Update</b>	
<b>Name of Jurisdiction:</b>	Town of Bristol
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flooding - old flood prevention law (1987), not recently updated
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Flood Prevention
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TB-2: Flood prevention law review/update
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Review and update Flood Prevention Law (1987)
<b>Summary of Evaluation Benefits (losses avoided):</b>	Erosion and Property Loss
<b>Estimated Cost:</b>	Potential Town Attorney involvement = \$175/hour
<b>Other Factors Considered:</b>	Outside legal review = cost unknown
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	Low
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	Town staffing
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Town Board legislative process
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update.



## ANNEX C: TOWN OF BRISTOL

<b>Previous Action Worksheet</b>	
<b>TB-3: Stormwater controls with sediment and erosion control measures</b>	
<b>Name of Jurisdiction:</b>	Town of Bristol
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Severe storm problems - Sediment and erosion control measures are needed
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Stormwater controls with sediment and erosion control measures
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TB-3: Stormwater controls with sediment and erosion control measures
<b>Name of Action or Project:</b>	measures
<b>Action or Project Description:</b>	Engineered sediment and erosion plans required. Investigate existing requirements for measures as part of municipal project review. Could be done in conjunction with Task TB-3 and TB-4.
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Provided stormwater control helps prevent property and road damage. N/A will need to be engineered. Possible Town Attorney involvement = \$175/hour
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	Town Budget and grants if available
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Floodplain Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Defer to Plan Update.

# ANNEX C: TOWN OF BRISTOL

## NEW MITIGATION ACTIONS

TOWN OF BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.3	Flood, Wildfire	Development Restrictions: With the increase in development growth there is a need to restrict building in high-risk areas throughout town. This action protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Town will look to review current zoning and ordinances in an effort to restrict future development in high-risk areas.	No	N/A	12 months	Town Zoning Board	Staff Time	Reduce risk of damages to new structures and infrastructure through building restrictions in high-risk areas.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Communication, Safety/Security
2	1.4	Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wind, Wildfire	Tree Maintenance Program: Downed trees and branches have impacted right-of-ways and stormwater drainage and a proper maintenance program to reduce the risk of debris should be developed. This action protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Adopt and implement a routine tree trimming program that clears tree limbs near power lines and/or hanging in right-of-way for all town roads; Remove dead trees from right-of way and drainage systems on a scheduled basis throughout town-wide roadways.	No	Further review required	12 Months	Town Highway Department	\$50,000 (annually)	Reduce damages to infrastructure; Ensure continuity of services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget, Staff time	H	Safety/Security
3	6.1	Drought	Landscape Ordinance: Within climate change, the Town would benefit from incorporate drought tolerant landscaping into new development practices to assist in water availability during drought periods.	Adopt a landscape ordinance (selection and planting guidelines).	No	N/A	24 months	Town Zoning Board	Staff Time	Reduce impact on groundwater; Reduce rainfall runoff volume and risk of flooding; Reduce risk and spread of wildfire.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Communication
4	6.1	Extreme Heat, Drought,	"Green Infrastructure" Program: Adopting and implementing long term	Establish, adopt, and implement a "green infrastructure" program	No	N/A	36 months	Park Commissioner	Staff Time	Reduce impacts of flood through expanded greenspace	Local Department Budget;	L	Safety/Security

# ANNEX C: TOWN OF BRISTOL

TOWN OF BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
		Flood	nature-based mitigation solutions will assist the Town in sustainable planning, design, environmental management, and engineering practices that weave natural features or processes into the built environment to promote adaptation and resilience. This action protects infrastructure and reduces cost of reparation.	for town parks.						and restoration of floodplains and wetlands; Reduce impacts of drought through green infrastructure that works to replenish groundwater reserves; Reduce impacts of Urban Island Heat effect in densely populated areas through tree planting. By identifying vulnerable high infrastructures and making necessary improvements to expand drainage capability reduces flood risk and risk of damages and injuries. In addition, this would also reduce emergency response demands.	HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds		
5	5.4	Flood	Drain and Culvert Improvements: Inadequate drainage systems along multiple county route locations cause flooding, damage to roadways, and create hazardous driving conditions for motorists. This action protects the community and reduces the risk of flooding.	Upgrade undersized stormwater drains and culverts with focus on local roads and new development.	No	Further review required	18 months	Town Highway Department	\$1,000,000	By identifying vulnerable high infrastructures and making necessary improvements to expand drainage capability reduces flood risk and risk of damages and injuries. In addition, this would also reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
6	2.1	Wildfire	Implement a fuels reduction program: Wildfire and fire events are extremely likely due to the planning area terrain. Developing a program to reduce the potential fuel and increase defensible space will help reduce the spread of wildfire throughout the community especially in high-risk areas in the WUI.	Work with state and local agencies to determine locations to reduce fuel on public and private lands.	No	Further review required	24 months	Park Commissioner	Staff Time	Reduce risk of wildfires and the spread of wildfire through targeted fuels reduction programs.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security, Communication

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
7	1.3	Wildfire	Create defensible space: Wildfire and fire events are extremely likely due to the planning area terrain. Developing a program to reduce the potential fuel and increase defensible space will help reduce the spread of wildfire throughout community.	Cut firebreaks into public wooded areas within town parks according to risk factors.	No	Further review required	24 months	Park Commissioner	\$200,000 - \$500,000	Reduce risk of wildfires and the spread of wildfire through targeted firebreaks.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
8	1.2	Wildfire	Install Burn Ban Signs: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Installing warning signs throughout the community will provide life safety benefits to residents in the area.	Install fire danger rating/burn ban signs through town parks.	No	N/A	12 months	Fire Department	Staff Time \$100 per sign	Reduce risk and spread of wildfires through education and awareness programs; Reduce risk of damages and injuries.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Communication
9	3.1	Ice Storm, Snow Storm	Education of prevention of frozen pipes: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property	Educate citizens on mitigation measures to prevent frozen pipes; Educate homeowners on carbon monoxide monitors/alarms. Display information at Town Hall, Fire Department and Public Library.	No	N/A	12 months	Town Board, Fire Department	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
10	4.2	Ice Storm, Snow Storm	Winterization of Public Facilities: Due to the location of the planning area winter storm events are highly likely. It would be beneficial to protect	Add building insulation to walls and attics and wrap/insulate pipes at Town Hall and Highway Garage.	Yes	N/A	24 months	Town Board	\$100,000	Reduce risk of damages at public buildings resulting from freezing temperatures; Ensure	Local Department Budget; HMGP, BRIC,	H	Safety/Security

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				critical infrastructure to ensure continuity of operations during and after an event.						continuity of public services.	CDBG, PA 406 (when applicable) local bonds		
11	1.4	Water Contamination	Monitoring of water tanks: There has been an on-going issue with chemicals being prevalent at Day Road water tank.	Continue monitoring and working with MRB Engineering, USDA and Canandaigua Water District to implement a plan to remediate and prevent further potential water contamination.	Yes	N/A	12 months	Town Board	Staff and Personnel Time	Prevents water contamination and ensures potable water. Reduces risk of injury and fatalities to residents.	Local Department Budget, Staff time	H	Communication, Safety/Security
12	3.1	Infestation	Invasive Species and Infestation Notification: The Town of Bristol is a risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Town will promote awareness and mitigation measures residents can take to reduce the risk of species that are invasive to the area. Information will be provided through town website, postings in affected areas and in cooperation with local library.	No	N/A	12 months	Town Board	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
13	1.4	Flood	Stormwater Maintenance Program: Flooding/severe storm concerns and risk - significant flooding in the past. Drainage Issues have caused stormwater concerns as roads have flooded. This action protects the community and reduces the risk of flooding.	Implement debris removal (tree and brush) from culverts and drains.	No	Further review required	24 months	Town Highway Department	10,000 - \$15,000	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
14	2.3	Flood	Flood Damage Prevention Law: The current prevention law is outdated and should be	Review and update Flood Prevention Law (1987).	No	N/A	12 months	Town Board	Staff Time \$175/hr. for Town	Reduce flood damages through development	Local Department Budget,	H	Communication

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TOWN OF BRISTOL PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			reviewed and updated. This action protects infrastructure, reduces cost of reparation, and prevents injury to residents.						Attorney involvement)	restrictions and improved construction requirements in flood-prone areas.	Staff time		
15	5.2	Flood	Stormwater controls with sediment and erosion measures: Extreme rainfall and snowmelt events result in high stormwater flow rates, which can result in significant amounts of debris (including sediment, rubble, and woody debris) being mobilized and directed to downstream portions of streams. The build-up of debris can compromise the performance of downstream bridges and culverts, jeopardizing these installations (as well as the associated roadways). This action protects the community and reduces risk of flooding.	Engineered sediment and erosion plans required. Assess existing requirements for measures as part of municipal project review and implement necessary improvements.	No	Further review required	24 months	Town Board	\$4-6 per square yard for potential improvements	Reduce risk of flood damages due to erosion or scour during flood events.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bond	M	Safety/Security
16	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snowstorms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying	No	N/A	12 months	Town Board, Ontario County Emergency Management	Ontario County Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX C: TOWN OF BRISTOL

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.									
17	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
18	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX C: TOWN OF BRISTOL

TOWN OF BRISTOL PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				maintenance, etc.									
19	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
20	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings,	No	N/A	36 months	Town Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX C: TOWN OF BRISTOL

TOWN OF BRISTOL PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).									
21	3.1	Infestation	Invasive Species and Infestation: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, and Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
22	3.3	Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
23	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX C: TOWN OF BRISTOL

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
24	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	monoxide alerts, fire extinguishers in home, proper safety tips, etc. Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
25	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
26	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX C: TOWN OF BRISTOL

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Bristol
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	X
Continuity of Operations	X
Drought Contingency Plan	
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	X
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	X
Stormwater Management Plan	X
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	

## ANNEX C: TOWN OF BRISTOL

COMMUNITY CAPABILITY CHECKLIST	Town of Bristol
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	X
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	X
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX C: TOWN OF BRISTOL

COMMUNITY CAPABILITY CHECKLIST	Town of Bristol
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	X
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	
Public Information Official	X
Resource Development/ Grant Writer	





**ANNEX D**  
**TOWN OF CANADICE**



# ANNEX D: TOWN OF CANADICE

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  - Future Development ..... 3
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# ANNEX D: TOWN OF CANADICE

## JURISDICTION PROFILE

### OVERVIEW

The Town of Canadice is located in Ontario County, New York, with a population of just over 1,600. The Town of Canadice is in the Finger Lakes region of New York and is in the southwestern part of its county. According to the United States Census Bureau, the town has a total area of 32.5 square miles of which 30.0 square miles is land and 2.4 square miles is water. The eastern town line is partly defined by Honeoye Lake, the western town line by Hemlock Lane, and Canadice Lake is entirely within the town, both minor Figure Lakes. The southern and western town lines form a part of the border of Livingston County. Figure D-1 shows the general location of the Town of Canadice.

## TOWN OF CANADICE CONTACT INFORMATION

Name: Christopher Vastola

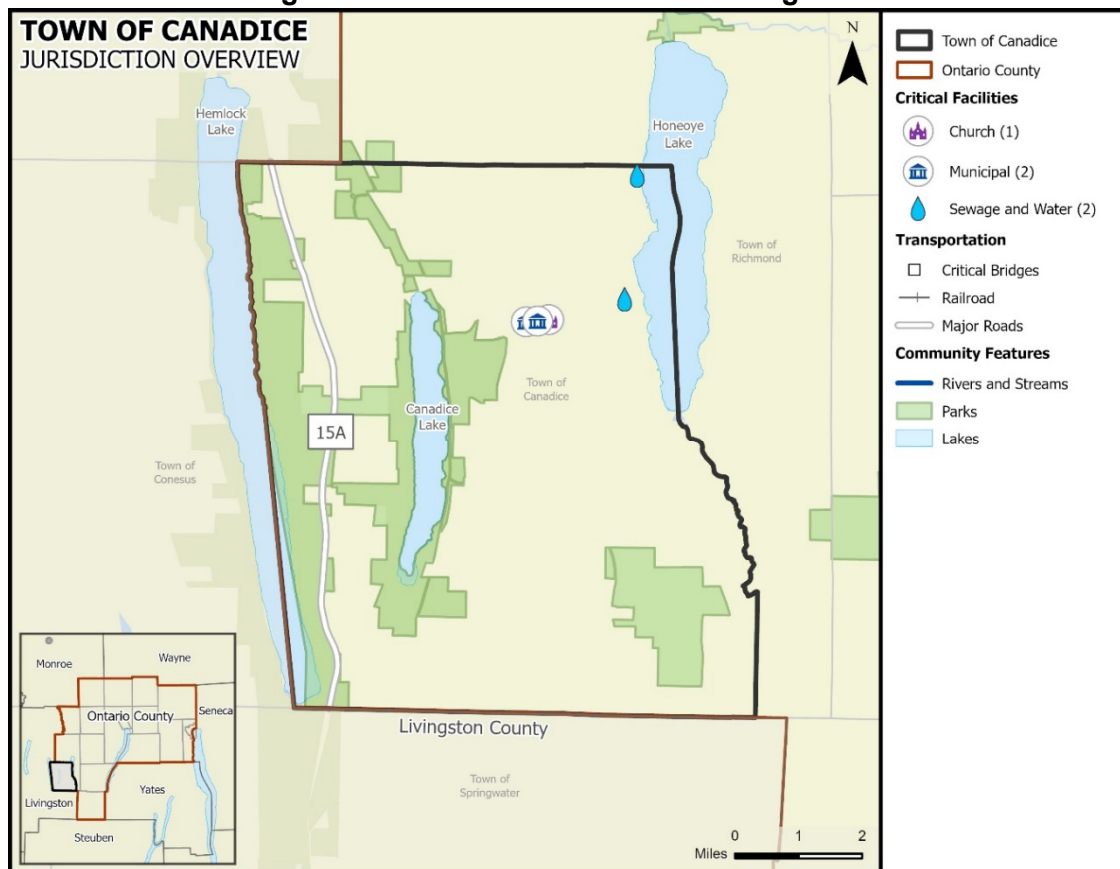
Title: Town Supervisor

Phone: (585) 367-2050, ext. 1

Address: 5949 County Rd 37, Springwater, NY 14560

Email: [supervisor@canadice.org](mailto:supervisor@canadice.org)

Figure D-1. Town of Canadice Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

## ANNEX D: TOWN OF CANADICE

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Canadice has an official population of 1,668 residents, a 4 percent increase since the 2010 census. Table D-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Canadice using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table D-1. Population Distribution for the Town of Canadice**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Canadice	1,664	1,690	1.56%	68	369	118

### POPULATION GROWTH

The official 2020 Town of Canadice population is 1,668. Overall, the Town of Canadice experienced a decrease in population between 1990 and 2020 of 1.4 percent, or a decrease by 189 residents. Between 2010 and 2020, the Town of Canadice experienced a population growth. Table D-2 provides historic change rates in the Town of Canadice.

**Table D-2. Population Growth for the Town of Canadice, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Canadice	1,857	1,846	1,664	1,668	-189	-1.4%	4	0.2%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Canadice might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX D: TOWN OF CANADICE

impacts. D-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

**Table D-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table D-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table D-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Canadice	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Canadice’s website. A total of 6 surveys were completed for the Town of Canadice. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX D: TOWN OF CANADICE

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Canadice's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

# ANNEX D: TOWN OF CANADICE

## HAZARD PROFILES

### DAM FAILURE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the dam failure hazard for each participating jurisdiction impacted by dam failure (Section 5). The National Dam Safety Review Board (in coordination with FEMA) and the National Inventory of Dams (NID) lists a total of 10 dams in the entire Ontario County planning area, including all jurisdictions. Each of these dams were analyzed individually by location, volume, elevation, and condition (where available) when determining the risk, if any, for each dam. Each dam site was further analyzed for potential risks utilizing FEMA’s National Flood Hazard Layer to map locations and fully understand development near the dam and topographical variations that may increase risk. Based on the detailed analysis, the planning team was able to determine that only 1 of the 10 dams identified pose a risk to the Town of Canadice.

**Table D-5. Town of Canadice Dam Survey<sup>8</sup>**

LOCATIONS AT RISK	DAM NAME	HEIGHT (Ft.)	MAX STORAGE (Acre Ft.)	CONDITION	HAZARD CLASSIFICATION
Town of Canadice	Canadice Lake Dam	11	16,195	Satisfactory	High

#### **Canadice Lake Dam**

Canadice Lake Dam is located in the Town of Canadice and is owned by the City of Rochester. The earthen dam was constructed in 1947 and it primarily serves as a water supply source. Dam failure presents a low to moderate threat for the Town of Canadice and loss of life is not expected. The area located near the dam is semi-rural with approximately 50 residential structures and several access roads within 3 miles of the dam. Extensive damages are not anticipated in the event of a breach due to the limited storage of the dam. Maximum storage capacity is 16,195 acre-feet. In the event of a breach during extreme conditions, a dam failure could cause limited infrastructure damages, minor power outages and could disrupt utility systems.

In the event of a breach, it is estimated that the average breach width would be 195.2 feet with a maximum breach flow of 10,862 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of up to 3-5 feet, with the highest depth in the immediate area of the dam.

There are no reported dam failure events or other dam incidents recorded during the reporting period. While the Town of Canadice is profiling dam failure, there are no known incidents, events, or damages as a result of dam failure in the planning area.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical occurrences of dam failures, the probability for future events is considered “Unlikely” for the Town of Canadice, meaning an event is possible in the next ten years.

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<sup>8</sup> National Inventory of Dams



## ANNEX D: TOWN OF CANADICE

### *VULNERABILITY AND IMPACT*

The Town of Canadice planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts. None of the identified critical facilities in the Town of Canadice were located within the estimated dam inundation zone. Impacts to critical facilities located in estimated inundation zones are listed in the dam failure hazard profile (Section 5).

Flooding is the most prominent effect of dam failure. If the dam failure is extensive, a large amount of water would enter the downstream waterways forcing them out of their banks. There may be significant environmental effects, resulting in flooding that could disperse debris and hazardous materials downstream that can damage local ecosystems. If the event is severe, debris carried downstream can block traffic flow, cause power outages, and disrupt local utilities.

Annualized loss-estimates for dam failure are not available; neither is there a breakdown of potential dollar losses for critical facilities, infrastructure and lifelines, or hazardous-materials facilities. Historically, the overall severity of impact from a dam failure for the Town of Canadice would be considered “Limited,” meaning it could result in injuries that can be treated with first-aid, critical facilities being shut down for 24-hours or less and less than 10 percent of the property in the estimated breach inundation area destroyed or with major damage.

## ANNEX D: TOWN OF CANADICE

### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Canadice, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Canadice can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Canadice, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Canadice planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of Canadice:

**Table D-6. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

The population over 65 in the Town of Canadice is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 437 potentially vulnerable residents in the Town of Canadice based on age. In addition, an estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-7).

**Table D-7. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canadice	369	68	118

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX D: TOWN OF CANADICE

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Canadice, are provided on a County-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Canadice can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Canadice, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Canadice planning team members identified the following critical facilities (Table D-8) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Town of Canadice:

**Table D-8. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

The population over 65 in the Town of Canadice is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 437 potentially vulnerable residents in the Town of Canadice based on age. In addition, an estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-9).

**Table D-9. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canadice	369	68	118

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX D: TOWN OF CANADICE

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Canadice, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Canadice can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Canadice, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Canadice planning team members identified the following critical facilities (Table D-10) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of Canadice:

**Table D-10. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

The population over 65 in the Town of Canadice is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 437 potentially vulnerable residents in the Town of Canadice based on age. In addition, an estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-11).

**Table D-11. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canadice	369	68	118

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

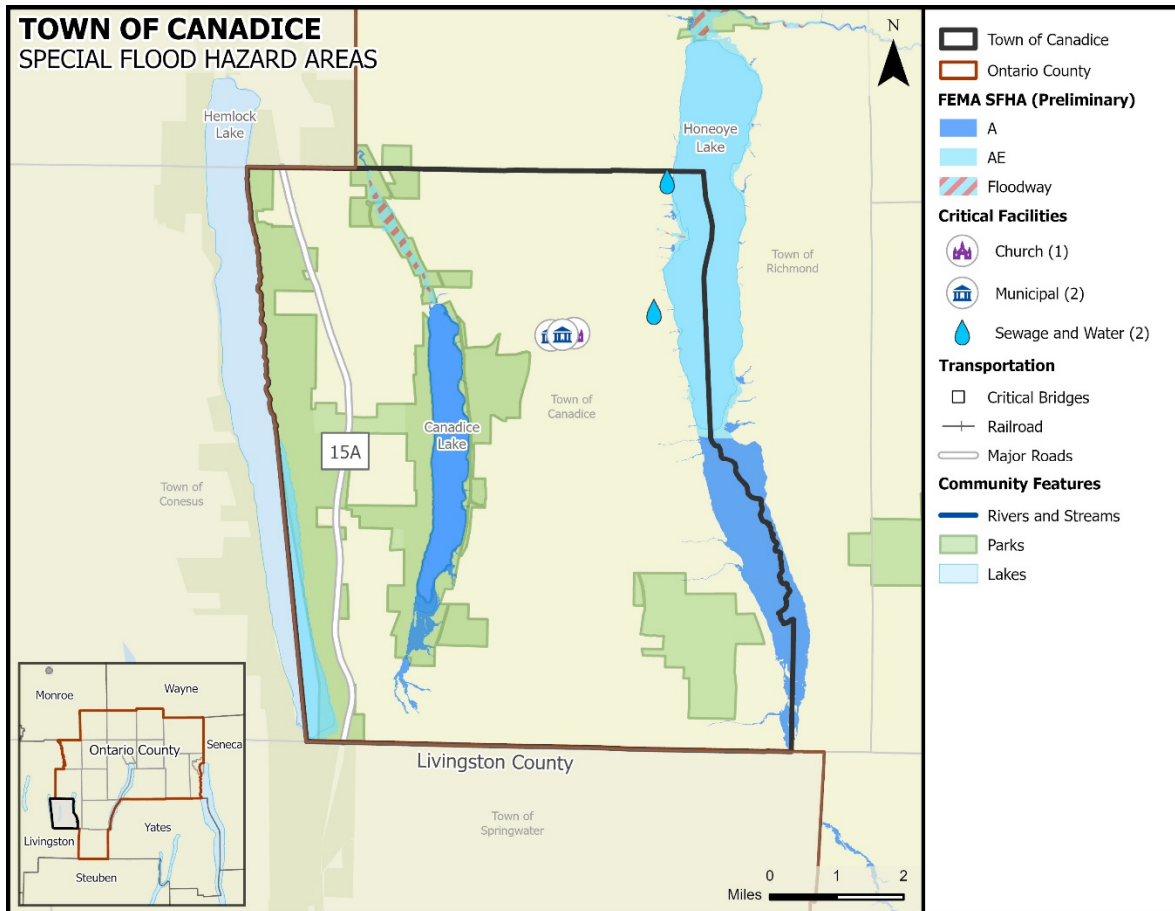
# ANNEX D: TOWN OF CANADICE

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Canadice, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Canadice, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure D-2.

Figure D-2. Estimated Flood Zones in the Town of Canadice<sup>9</sup>



### HISTORICAL OCCURRENCES

Table D-12 provides the historical occurrences of flood events for the Town of Canadice according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, 6 flood events were known to have impacted the Town of Canadice, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>9</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX D: TOWN OF CANADICE

**Table D-12. Historical Flood Events, 1996-2023<sup>10</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Canadice	7/13/2010	0	0	\$40,755	\$0
	4/26/2011	0	0	\$1,448,552	\$0
	7/28/2014	0	0	\$43,509	\$0
	5/18/2015	0	0	\$18,682	\$0
	6/14/2015	0	0	\$62,054	\$0
	7/23/2017	0	0	\$24,198	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$1,637,750</b>	

Based on the list of historical flood events for the Town of Canadice no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Canadice can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Canadice planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. There are no critical facilities in the Town of Canadice located in the floodplain. Historic loss estimates due to flood are presented in Table D-13 below.

**Table D-13. Potential Annualized Losses, 1996-2023<sup>11</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Canadice	6	\$1,637,750	\$59,555

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

<sup>10</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>11</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.



## ANNEX D: TOWN OF CANADICE

**Table D-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canadice	118

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table D-15 depicts the level of impact for the Town of Canadice.

**Table D-15. Town of Canadice Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Canadice	Limited	It is anticipated that the Town could anticipate an impact of “Limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Canadice currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Canadice has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Canadice as a low risk hazard during hazard ranking activities at the Risk Assessment Workshop. However, many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Canadice Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table D-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

## ANNEX D: TOWN OF CANADICE

**Table D-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Canadice	N/A	8/13/2014	Good Standing	3

### *REPETITIVE LOSS*

Table D-17 shows repetitive loss and severe repetitive loss properties for the Town of Canadice.

**Table D-17. Repetitive Loss and Severe Repetitive Loss Properties**

JURISDICTION	BUILDING TYPE	NUMBER OF LOSSES
Town of Canadice	2-4 Family	0
	Assumed Condo	0
	Non-Residential	0
	Other Residential	0
	Single Family*	2

## ANNEX D: TOWN OF CANADICE

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence across the planning area demonstrates that the Town of Canadice is vulnerable to hail events overall. However, a total of 0 reported historical hail events impacted the Town of Canadice between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years.

#### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Canadice can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Canadice planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table D-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

The U.S. Census data indicates a total of 209 (17 percent of total housing stock) manufactured homes located in the Town of Canadice. In addition, 58 percent (approximately 713 structures) of the housing structures in the Town of Canadice were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table D-19. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of Canadice	209	713

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-20).

## ANNEX D: TOWN OF CANADICE

**Table D-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canadice	118

Overall, the total loss estimate of property and crops in the Town of Canadice is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Town of Canadice can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table D-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Canadice	\$0	\$0

## ANNEX D: TOWN OF CANADICE

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Canadice, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Canadice can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Canadice, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Canadice planning team members identified the following critical facilities (Table D-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of Canadice:

**Table D-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

The population over 65 in the Town of Canadice is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 437 potentially vulnerable residents in the Town of Canadice based on age. In addition, an estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-23).

**Table D-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canadice	369	68	118

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX D: TOWN OF CANADICE

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides.

According to the New York State Hazard Mitigation Plan, the entire population in the Town of Canadice is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides. No landslide incidents have been reported in the Town of Canadice.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Canadice over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Canadice.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.



## ANNEX D: TOWN OF CANADICE

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There have been no recorded lightning events in the Town of Canadice from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Canadice is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Town of Canadice planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table D-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Canadice's population live below the poverty level (Table D-25).

**Table D-25. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canadice	118

With no historical lightning events or losses, the impacts of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Canadice due to lightning are considered negligible.

ANNEX D: TOWN OF CANADICE

**Table D-26. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Canadice	\$0	\$0

## ANNEX D: TOWN OF CANADICE

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Canadice, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Canadice can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Canadice, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Canadice planning team members identified the following critical facilities (Table D-27) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of Canadice:

**Table D-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

The population over 65 in the Town of Canadice is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 437 potentially vulnerable residents in the Town of Canadice based on age. In addition, an estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-28).

**Table D-28. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canadice	369	68	118

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX D: TOWN OF CANADICE

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, from January 1994 through August 2023, no tornado events are known to have impacted the Town of Canadice.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County Planning Area, the Town of Canadice can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Canadice planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table D-29. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 209 manufactured homes are located in the Town of Canadice (17 percent of total housing stock). In addition, 58 percent (approximately 713 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table D-30. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Canadice	713	209

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-31).

## ANNEX D: TOWN OF CANADICE

**Table D-31. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canadice	118

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the Town of Canadice would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table D-32. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Canadice	\$0	\$0

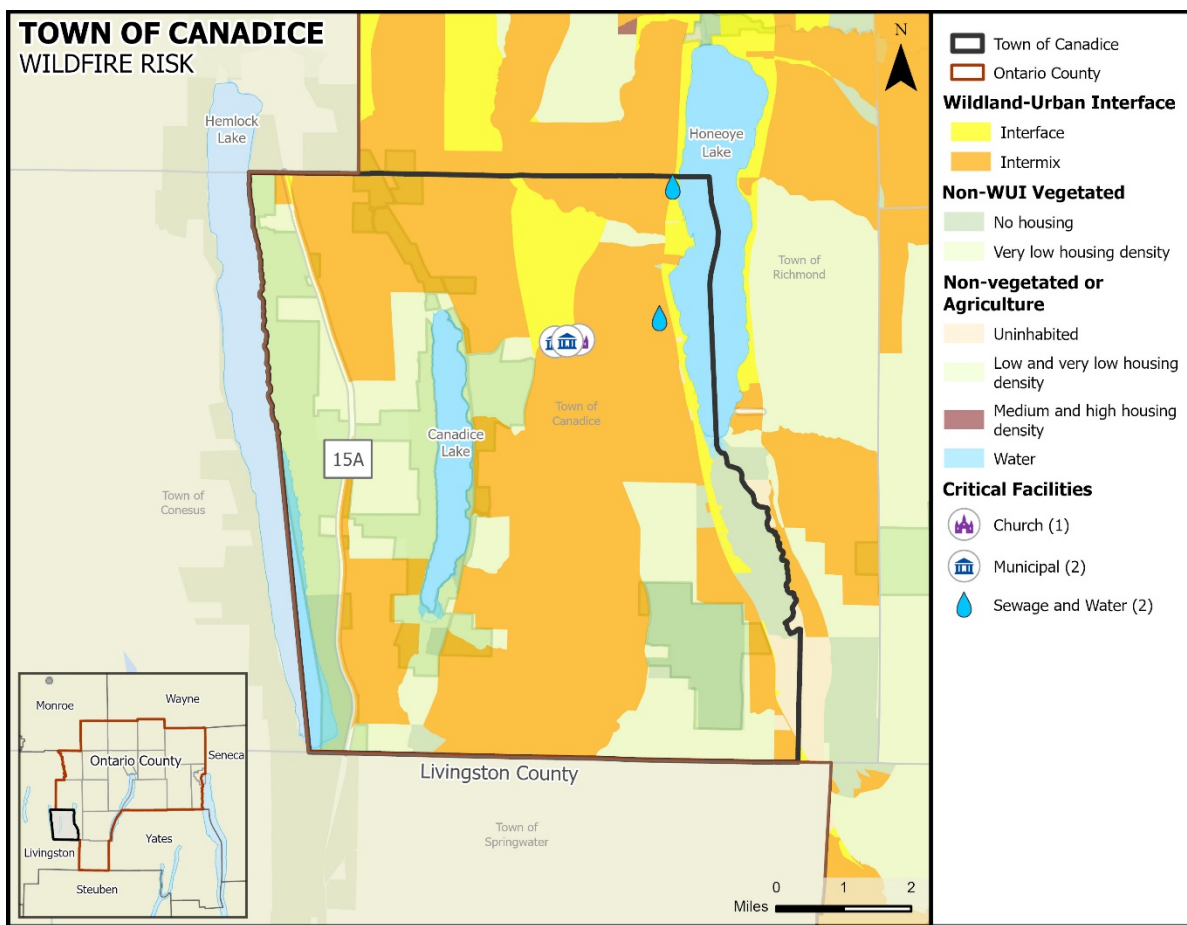
# ANNEX D: TOWN OF CANADICE

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure D-3). The Town of Canadice planning area is considered at low risk for wildfires with limited WUI areas.

Figure D-3. Town of Canadice Wildland Urban Interface Map<sup>12</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>12</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX D: TOWN OF CANADICE

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Canadice, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

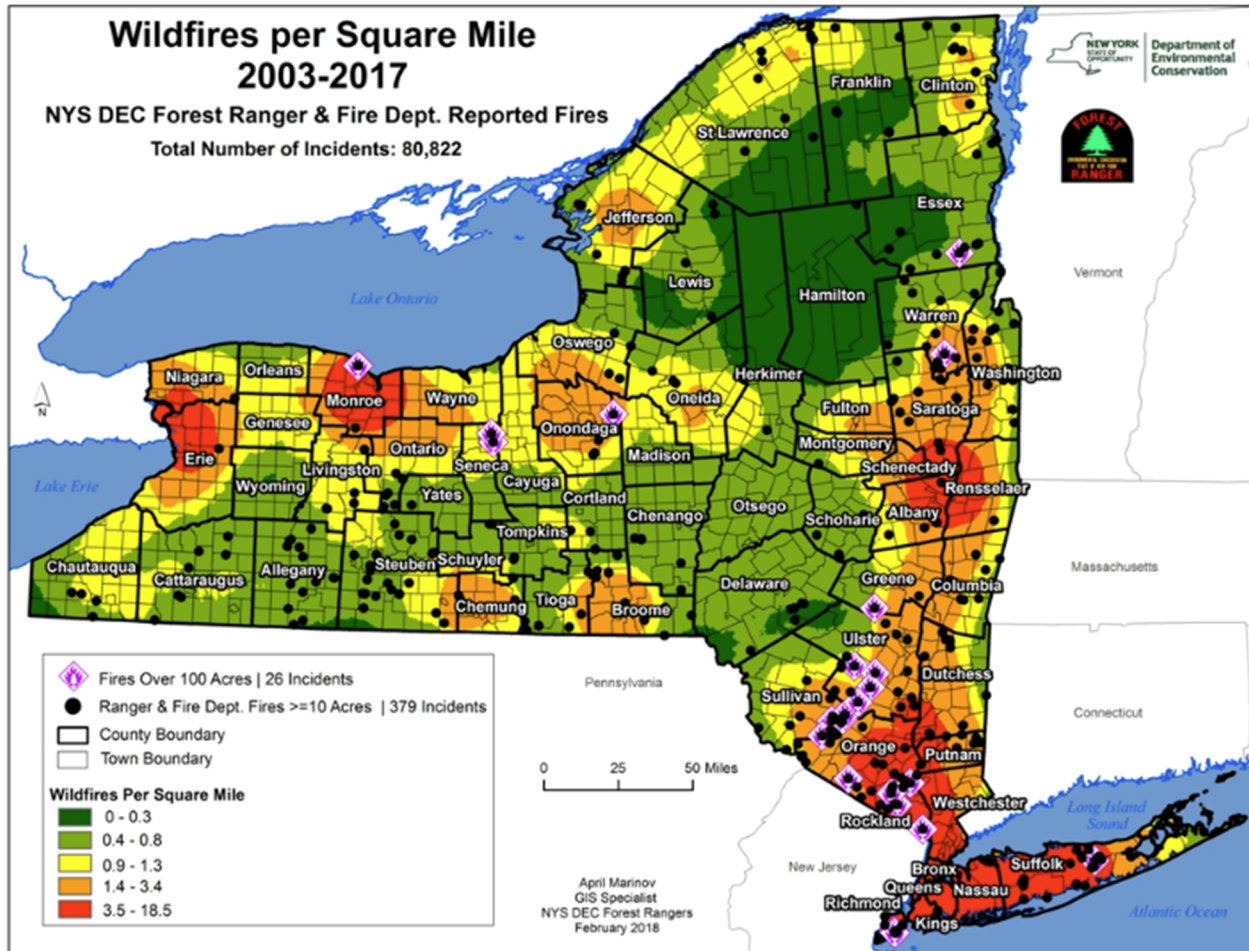
The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure D-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.



## ANNEX D: TOWN OF CANADICE

Figure D-4. Wildfires per Square Mile, 2003-2017



### *HISTORICAL OCCURRENCES*

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

### *VULNERABILITY AND IMPACT*

The Town of Canadice planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

ANNEX D: TOWN OF CANADICE

**Table D-33. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

For the Town of Canadice, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX D: TOWN OF CANADICE

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, two wind events are known to have occurred in the Town of Canadice. Table D-34 presents information on known historical events impacting the Town of Canadice.

**Table D-34. Historical Wind Events, 1956-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Canadice	10/15/2017	50	0	0	\$7,204	\$0
	8/8/2019	50	0	0	\$2,309	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$9,513</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of Canadice, one of the reported events has occurred since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Canadice can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

#### VULNERABILITY AND IMPACT

The Town of Canadice planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table D-35. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canadice	1 Church, 2 Recreational Community Facilities, 2 Municipal Buildings, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 209 manufactured homes are located in the Town of Canadice (17 percent of total housing stock). In addition, 58 percent (approximately 713 structures) of the housing units were built before 1980.

<sup>13</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX D: TOWN OF CANADICE

These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant wind events.

**Table D-36. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Canadice	713	209

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of Canadice’s population live below the poverty level (Table D-37).

**Table D-37. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canadice	118

Impact of wind events experienced in the Town of Canadice would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$9,513 damages (in 2023 dollars) in the Town of Canadice due to wind events. The estimated average annual loss from a wind event is \$141.

**Table D-38. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Canadice	\$9,513	\$141

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

## ANNEX D: TOWN OF CANADICE

### PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TCanad-1: Stormwater management and erosion control improvements</b>	
<b>Name of Jurisdiction:</b>	Town of Canadice
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Concerns with flooding, stormwater management and erosion control. Issues with stormwater management facilities not being effective or needing maintenance. Roadside culverts plug up causing flooding on Lawrence Hill Road (primarily the north/south leg, but also on the east/west leg although somewhat less severe. Rip rap is also frequently displaced by excess water flow.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TCanad-1: Stormwater management and erosion control improvements
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Investigate other approaches to rip rap, such as cable concrete, etc. which may prove to remain in place better than the rock that is currently being used.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Benefits: preservation of road surface, shoulders, and drainage ditches
<b>Estimated Cost:</b>	Estimated Cost: \$45,000
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Canadice Highway Dept.
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2019
<b>Potential Fund Sources:</b>	FEMA HMGP Funding and Public Works Department
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Floodplain Management Program
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	Defer to Plan Update. Town has received WQIP grant for ditch stabilization to happen in 2024 along with Capitol Improvement Road Project.
<b>Evaluation of Effectiveness:</b>	

## ANNEX D: TOWN OF CANADICE

<b>Previous Action Worksheet</b>	
<b>TCanad-2: Fire hydrant inventory, assessment &amp; installation</b>	
<b>Name of Jurisdiction:</b>	Town of Canadice
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Fire hydrants - some areas are underserved and could use hydrants.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Install additional dry hydrants at area water sources
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	TCanad-2: Fire hydrant inventory, assessment & installation
<b>Action or Project Description:</b>	Survey potential areas that can be served by additional dry hydrant locations. Install additional dry hydrants at area water sources
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Benefits: adequate water supplies for firefighting purposes \$10,000 est.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Local Fire Departments
<b>Action/Project Priority:</b>	Low
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	Town Budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Emergency Response Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Completed and Defer to Plan Update. Hemlock Fire Dept. is looking into grant funding to install a new dry hydrant in 2024 on Coykendall Hill Road. The Installation of public water serviced by the Canadice Water District along the southern end of Honeoye Lake has provided fire hydrants to the residents along County. Rd. 36 and associated private roads.

## ANNEX D: TOWN OF CANADICE

<b>Previous Action Worksheet</b>	
<b>TCanad-3: Aquatic invasive species prevention on Canadice and Hemlock Lakes</b>	
<b>Name of Jurisdiction:</b>	Town of Canadice
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Need aquatic invasive species prevention on Canadice and Hemlock Lakes. Vegetative invasive species can also disrupt drainage ditches.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Establish a program for public education for invasive species Also develop a strategy for eradication of invasive species
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TCanad-3: Aquatic invasive species prevention on Canadice and Hemlock Lakes
<b>Name of Action or Project:</b>	TCanad-3: Aquatic invasive species prevention on Canadice and Hemlock Lakes
<b>Action or Project Description:</b>	Make literature available at boat launches on Canadice Lake in DEC kiosks. Vegetative invasive species spraying program.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Water intake for City of Rochester remain clear
<b>Estimated Cost:</b>	Improved fishery \$50,000
<b>Other Factors Considered:</b>	Drainage ditches remain clear of vegetation
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Highway Department with support from Finger Lakes PRISM
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2019
<b>Potential Fund Sources:</b>	DEC Grants if available otherwise Town Budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Honeoye Lake Watershed Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Defer to Plan Update.



## ANNEX D: TOWN OF CANADICE

<b>Previous Action Worksheet</b>	
<b>TCanad-4: Install erosion control measures/structures</b>	
<b>Name of Jurisdiction:</b>	Town of Canadice
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Severe erosion of drainage ditch and damage/loss of roadway and shoulder on Curtis Road.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Replace current rip rap with other material that will withstand force of water and prevent displacement.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TCanad-4: Install erosion control measures/structures
<b>Name of Action or Project:</b>	TCanad-4: Install erosion control measures/structures
<b>Action or Project Description:</b>	Install cable concrete or other erosion control structure to mitigate issue, especially on Curtis Rd. Replace current rip rap with other material that will withstand force of water and prevent displacement.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Benefit: Protect road surface and shoulder from loss \$80,000- \$100,000
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Highway Department
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	OCSWCD, Town staff
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Honeoye Lake Watershed Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed. The Town lost the round 16 WQIP grant funding which the engineered project was counting on for funding. A cross culvert in the area of question was upsized in 2022, diverting a larger volume of water halfway down the hill. Cutting the total ditch volume seems to slow the velocity.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX D: TOWN OF CANADICE

## NEW MITIGATION ACTIONS

TOWN OF CANADICE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Flood, Tornado, Wildfire, Wind	Tree Trimming Annual Maintenance Program: Tree maintenance is a priority to due utility wires. A plan will need to be developed and implemented. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Adopt and implement a routine tree trimming program that clears tree limbs in right-of-way; Remove dead trees from right-of way and drainage systems on a scheduled basis.	No	Further review required	12 months	Town Highway Department, in coordination with Coordination with State and County for utilization of service provider	Staff Time \$50,000 (annually)	Reduce damages to infrastructure; Ensure continuity of services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget, Staff time	M	Safety/Security
2	3.2	Flood	Debris Maintenance Education: The build-up of debris can compromise the performance of bridges and culverts, jeopardizing these installations (as well as the associated roadways). This project protects the community and reduces risk of flooding.	Educate community on the impact of debris in drainage systems located on private property up stream of culvert pipes.	No	N/A	12 months	Town Board	Staff Time	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget	M	Communication
3	5.4	Flood	Stormwater management and erosion control improvements at Lawrence Hill Road (primarily the north/south leg, but also on the east/west leg: Extreme rainfall events result in high stormwater flow rates, which result in the destabilization of stream channels (including streambanks), that causes erosion and deposition within	Assess current infrastructure for necessary upgrades such as ditch stabilization, rip rap, cable concrete, etc. to preserve road surface, shoulders, and drainage ditches.	No	Further review required	2024	Town Highway Department	\$60,000	Reduce the risk of flood damages due to erosion or scour during flood events. Reduce risk of injuries to residents; Reduce burden on emergency services during and after a flood event.	Local Department Budget; Local bonds; WQIP grant	H	Safety/Security

# ANNEX D: TOWN OF CANADICE

TOWN OF CANADICE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			these streams, as well as stream migration. The erosion of streambanks and migration of stream channels can jeopardize adjacent buildings, bridges, culverts, roadways, utilities, and other infrastructure. This project protects the community and reduces risk of flooding.										
4	5.4	Wildfire, Fire	Fire hydrant inventory, assessment & installation at Coykendall Hill Road: There are some areas within the town that have limited capacity to address fire hazards.	Survey potential areas that can be served by additional dry hydrant locations. Install additional dry hydrants at area water sources.	No	N/A	24 months	Hemlock (Local) Fire Department	\$12,500 per hydrant	Reduce risk of wildfires and the spread of wildfire by increasing water access and firefighting capabilities.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Safety/Security
5	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX D: TOWN OF CANADICE

TOWN OF CANADICE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
6	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX D: TOWN OF CANADICE

TOWN OF CANADICE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
8	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX D: TOWN OF CANADICE

TOWN OF CANADICE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
11	3.3	Dam Failure, Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
12	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX D: TOWN OF CANADICE

TOWN OF CANADICE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
13	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
15	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	3.1	Dam Failure	Dam Inundation Risk	Identify the area potentially at- risk in the event of dam failure and educate residents at risk on ways they can mitigate and reduce the effects of downstream impacts in the event of inundation.	No	N/A	12 months	Town Board	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX D: TOWN OF CANADICE

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Canadice
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX D: TOWN OF CANADICE

COMMUNITY CAPABILITY CHECKLIST	Town of Canadice
Fire Codes	
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	

## ANNEX D: TOWN OF CANADICE

COMMUNITY CAPABILITY CHECKLIST	Town of Canadice
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	



ANNEX E  
CITY OF CANANDAIGUA

# ANNEX E: CITY OF CANANDAIGUA

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## ANNEX E: CITY OF CANANDAIGUA

### JURISDICTION PROFILE

#### OVERVIEW

The City of Canandaigua is in Ontario County, New York, with a population just over 10,000. The city is the county seat of Ontario County. The City of Canandaigua is surrounded by the Town of Canandaigua. The city is on the northern end of Canandaigua Lake, one of the finger lakes, 24 miles southeast of Rochester, 58 miles west of Syracuse, and 93 miles east of Buffalo. According to the United States Census Bureau, the city has a total area of 4.8 square miles, of which 4.8 square miles is land and 0.2 square miles is water. Figure E-1 shows the general location of the City of Canandaigua.

#### CITY OF CANANDAIGUA CONTACT INFORMATION

Name: Bob Palumbo

Title: Mayor

Phone: (585) 394-8768

Address: 59 Gorham Street, Canandaigua, NY  
14424

Email: [bob.palumbo@canandaiguanewyork.gov](mailto:bob.palumbo@canandaiguanewyork.gov)

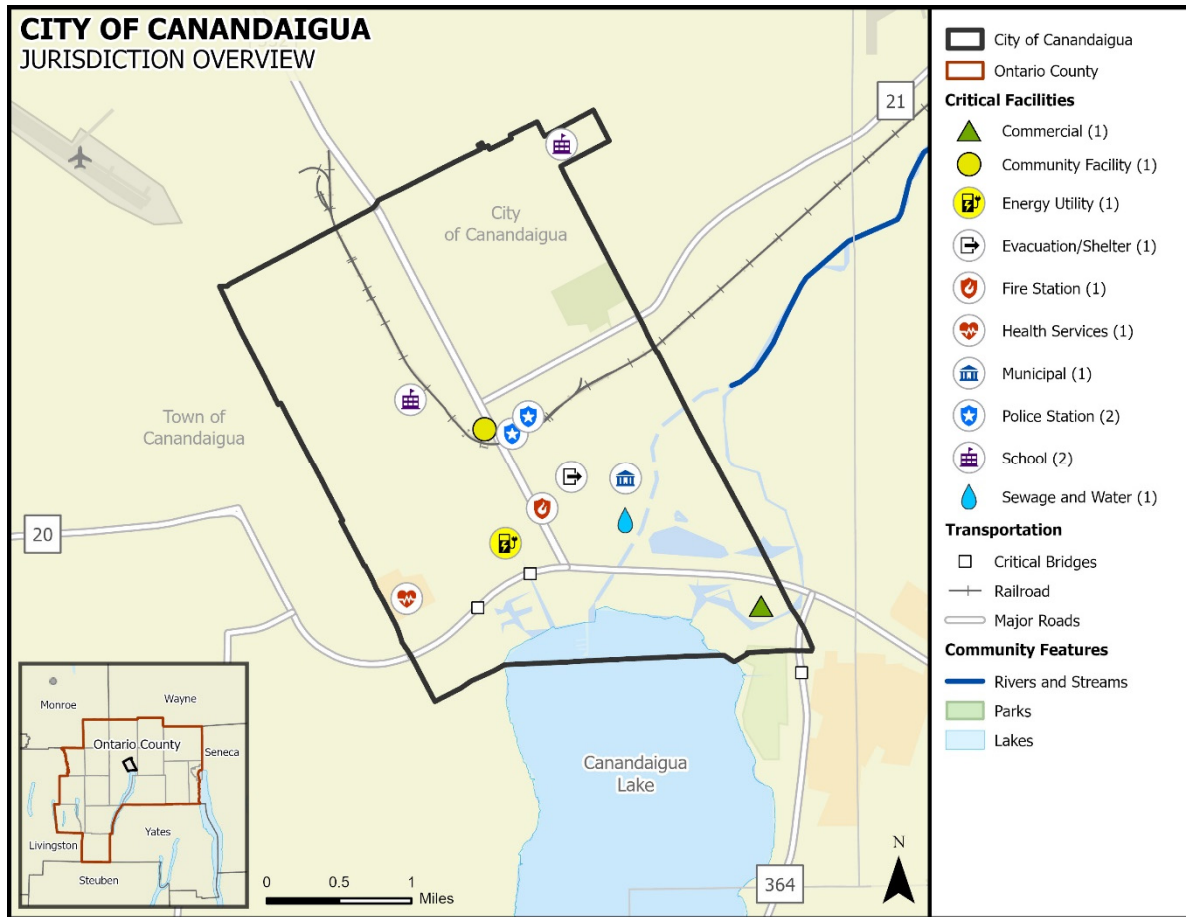
#### NOTE TO THE REVIEWER

It is noted that the City of Canandaigua and the Town of Canandaigua are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.



# ANNEX E: CITY OF CANANDAIGUA

Figure E-1. City of Canandaigua Planning Area<sup>1</sup>



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the City of Canandaigua has an official population of 10,576 residents, a 0.3 percent increase since the 2010 census. Table E-1 summarizes select characteristics of vulnerable or sensitive populations in the City of Canandaigua using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>



## ANNEX E: CITY OF CANANDAIGUA

**Table E-1. Population Distribution for the City of Canandaigua**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
City of Canandaigua	10,545	10,563	0.17%	431	2,234	845

### POPULATION GROWTH

The official 2020 City of Canandaigua population is 10,576. Overall, the City of Canandaigua experienced a decrease in population between 1990 and 2020 of 1.4 percent, or a decrease by 149 residents. Between 2010 and 2020, the City of Canandaigua experienced a population growth. Table E-2 provides historic change rates in the City of Canandaigua.

**Table E-2. Population Growth for the City of Canandaigua, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
City of Canandaigua	10,725	11,418	10,545	10,576	-149	-1.4%	31	0.3%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the City of Canandaigua might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table E-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

# ANNEX E: CITY OF CANANDAIGUA

**Table E-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

## PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table E-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table E-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
City of Canandaigua	Mayor

## PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the City of Canandaigua’s website. A total of 32 surveys were completed for the City of Canandaigua. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX E: CITY OF CANANDAIGUA

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the City of Canandaigua's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX E: CITY OF CANANDAIGUA

### HAZARD PROFILES

#### DAM FAILURE

The City of Canandaigua is not profiling dam failure. The City of Canandaigua does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX E: CITY OF CANANDAIGUA

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the City of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Canandaigua, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The City of Canandaigua planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the City of Canandaigua:

**Table E-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

The population over 65 in the City of Canandaigua is estimated at 21 percent of the City’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,665 potentially vulnerable residents in the City of Canandaigua based on age. In addition, an estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-6).

**Table E-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	2,234	431	845

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX E: CITY OF CANANDAIGUA

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the City of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Canandaigua, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the City of Canandaigua planning team members identified the following critical facilities (Table E-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the City of Canandaigua:

**Table E-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

The population over 65 in the City of Canandaigua is estimated at 21 percent of the City’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,665 potentially vulnerable residents in the City of Canandaigua based on age. In addition, an estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-8).

**Table E-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	2,234	431	845

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX E: CITY OF CANANDAIGUA

## EXTREME HEAT

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the City of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the City of Canandaigua, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the City of Canandaigua planning team members identified the following critical facilities (Table E-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the City of Canandaigua:

**Table E-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

The population over 65 in the City of Canandaigua is estimated at 21 percent of the City’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,665 potentially vulnerable residents in the City of Canandaigua based on age. In addition, an estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-10).

**Table E-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	2,234	431	845

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.



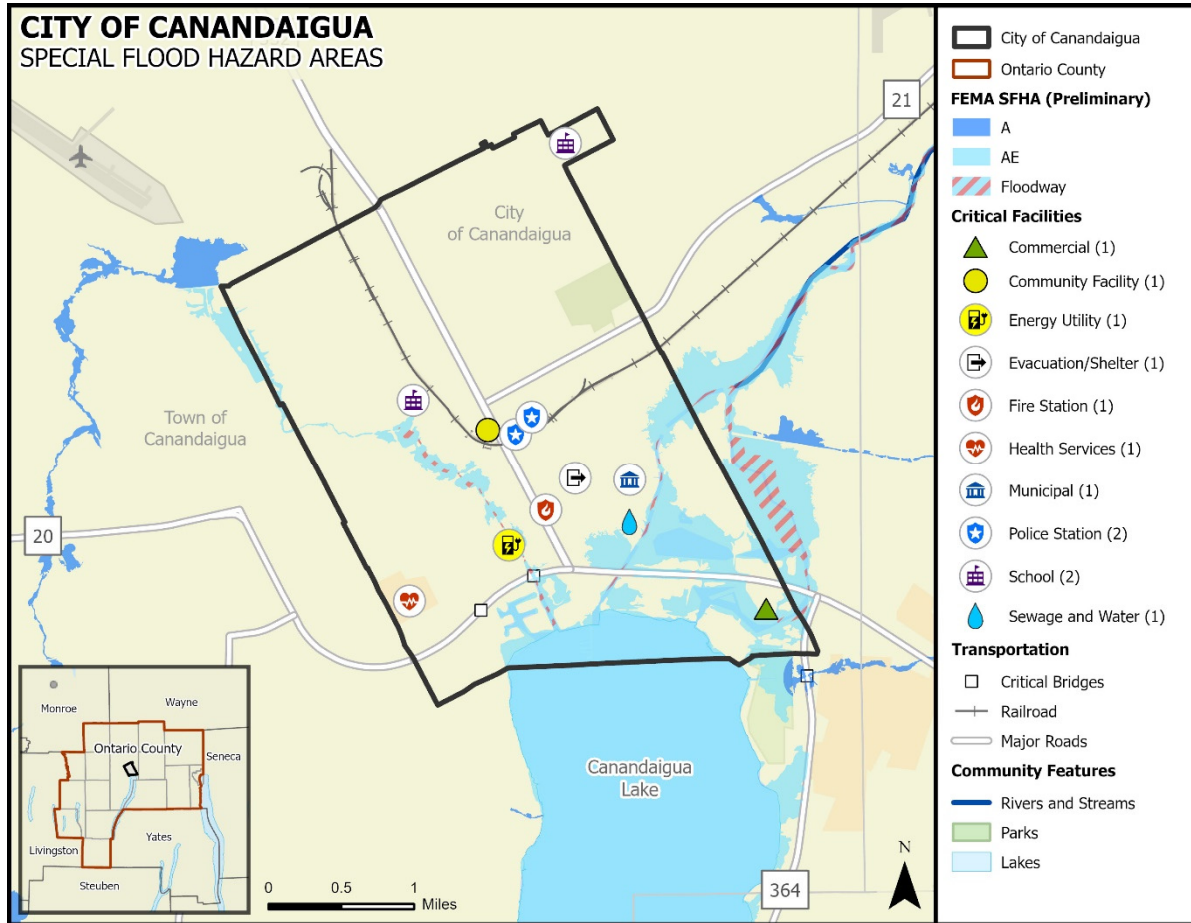
# ANNEX E: CITY OF CANANDAIGUA

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Full flood zone delineations with elevations are available in the City of Canandaigua. The location of estimated flood zones for the City of Canandaigua, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure E-2.

**Figure E-2. Estimated Flood Zones in the City of Canandaigua<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table E-11 provides the historical occurrences of flood events for the City of Canandaigua according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, 22 flood events were known to have impacted the City of Canandaigua, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX E: CITY OF CANANDAIGUA

**Table E-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	10/19/1996	0	0	\$93,547	\$0
	10/20/1996	0	0	\$93,547	\$0
	7/31/2000	0	0	\$42,849	\$0
	7/31/2000	0	0	\$42,849	\$0
	5/13/2004	0	0	\$15,662	\$0
	5/14/2004	0	0	\$7,831	\$0
	6/28/2010	0	0	\$40,764	\$0
	7/9/2010	0	0	\$13,585	\$0
	7/23/2017	0	0	\$60,495	\$0
	6/12/2023	0	0	\$0	\$0
	7/1/2023	0	0	\$0	\$0
	7/9/2023	0	0	\$501,000	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$912,129</b>	

Based on the list of historical flood events for the City of Canandaigua, 3 reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The City of Canandaigua planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. There are no critical facilities located in the floodplain in the City of Canandaigua.

Historic loss estimates due to flood are presented in Table E-12 below.

**Table E-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
City of Canandaigua	22	\$512,129	\$33,168

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX E: CITY OF CANANDAIGUA

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table E-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	845

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table E-14 depicts the level of impact for the City of Canandaigua.

**Table E-14. City of Canandaigua Impact**

JURISDICTION	IMPACT	DESCRIPTION
City of Canandaigua	Limited	The City of Canandaigua could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The City of Canandaigua currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The City of Canandaigua has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the City of Canandaigua as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The City of Canandaigua Zoning Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

## ANNEX E: CITY OF CANANDAIGUA

Table E-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table E-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
City of Canandaigua	N/A	4/27/2022	Good Standing	107

### *REPETITIVE LOSS*

Table E-16 shows repetitive loss and severe repetitive loss properties for the City of Canandaigua.

**Table E-16. Repetitive Loss and Severe Repetitive Loss Properties**

JURISDICTION	BUILDING TYPE	NUMBER OF LOSSES
City of Canandaigua	2-4 Family	3
	Assumed Condo	0
	Non-Residential	0
	Other Residential	0
	Single Family*	5

# ANNEX E: CITY OF CANANDAIGUA

## HAIL

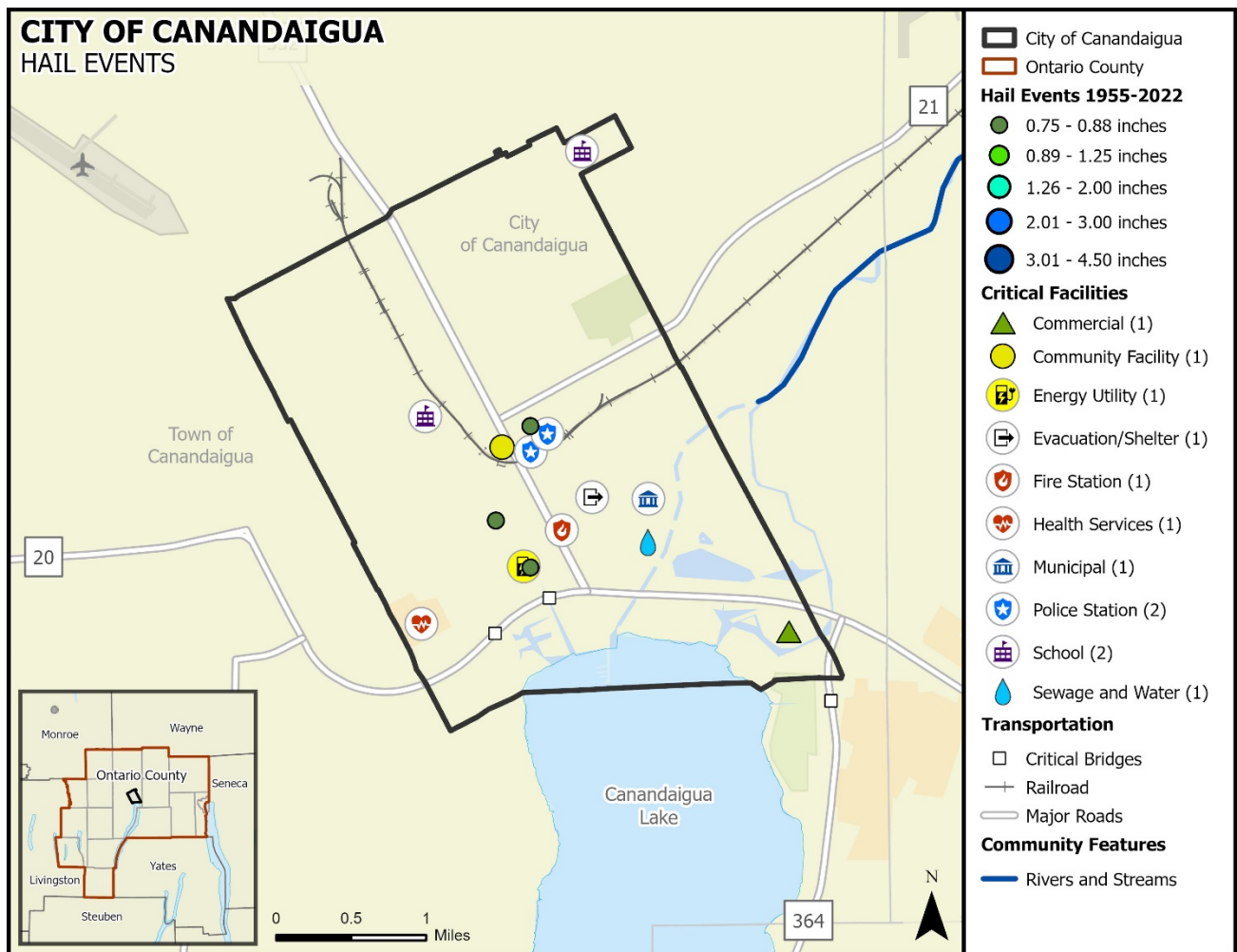
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure E-3 demonstrates that the City of Canandaigua is vulnerable to hail events overall. Historical events are shown in Table E-17. A total of 4 reported historical hail events impacted the City of Canandaigua between January 1955 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the City of Canandaigua with latitude and longitude available were plotted (Figure E-3).

Figure E-3. Historical Hail Events, 1956-2023<sup>11</sup>



<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX E: CITY OF CANANDAIGUA

**Table E-17. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	10/13/1999	0.75	0	0	\$26,412	\$0
	5/13/2004	0.75	0	0	\$7,831	\$0
	7/25/2006	0.75	0	0	\$11,643	\$0
	5/14/2017	0.75	0	0	\$0	\$0
<b>TOTALS</b>		<b>(Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$45,886</b>	<b>\$0</b>

Based on the list of historical hail events for the City of Canandaigua, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the City of Canandaigua can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The City of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table E-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

The U.S. Census data indicates a total of 62 (1 percent of total housing stock) manufactured homes located in the City of Canandaigua. In addition, 71 percent (approximately 3,931 structures) of the housing structures in the City of Canandaigua were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table E-19. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
City of Canandaigua	62	3,931

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX E: CITY OF CANANDAIGUA

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-20).

**Table E-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	845

Overall, the total loss estimate of property and crops in the City of Canandaigua is \$45,886 with an average annualized loss of \$680. Based on historic loss and damages, the impact of hail damages on the City of Canandaigua can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table E-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
City of Canandaigua	\$45,886	\$680



## ANNEX E: CITY OF CANANDAIGUA

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the City of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Canandaigua, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the City of Canandaigua planning team members identified the following critical facilities (Table E-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the City of Canandaigua:

**Table E-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

The population over 65 in the City of Canandaigua is estimated at 21 percent of the City’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,665 potentially vulnerable residents in the City of Canandaigua based on age. In addition, an estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-23).

**Table E-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	2,234	431	845

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX E: CITY OF CANANDAIGUA

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the City of Canandaigua is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area, including the City of Canandaigua, has no reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the City of Canandaigua over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the City of Canandaigua.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX E: CITY OF CANANDAIGUA

### LIGHTNING

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

There have been 2 recorded lightning events in the City of Canandaigua from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

**Table E-24. Historical Lightning Events, 1996-2023<sup>13</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	8/25/2011	0	0	\$32,683	\$0
	5/29/2016	0	0	\$43,150	\$0
<b>TOTALS</b>		<b>0</b>	<b>0</b>	<b>\$75,833</b>	

Based on the list of historical lightning events for the City of Canandaigua, there have been no reported events since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the City of Canandaigua is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### VULNERABILITY AND IMPACT

The City of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table E-25. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

<sup>13</sup> Historical events are reported from January 1996 through June 2023; values are in 2023 dollars.

# ANNEX E: CITY OF CANANDAIGUA

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-26).

**Table E-26. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	845

Historical losses and damages as a result of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the total loss estimate for the City of Canandaigua (in 2023 dollars) is considered \$75,833 with an average annualized loss of \$2,758 (Table E-27).

**Table E-27. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
City of Canandaigua	\$75,833	\$2,758

## ANNEX E: CITY OF CANANDAIGUA

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the City of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Canandaigua, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the City of Canandaigua planning team members identified the following critical facilities (Table E-28) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the City of Canandaigua:

**Table E-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

The population over 65 in the City of Canandaigua is estimated at 21 percent of the City’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,665 potentially vulnerable residents in the City of Canandaigua based on age. In addition, an estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-29).

**Table E-29. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	2,234	431	845

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

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### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

According to the National Centers for Environmental Information (NCEI) Storm Events database, from January 1994 through August 2023, no tornado events are known to have impacted the City of Canandaigua.

#### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

The City of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table E-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 62 manufactured homes are located in the City of Canandaigua (1 percent of total housing stock). In addition, 71 percent (approximately 3,931 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table E-31. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
City of Canandaigua	3,931	62

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a

## ANNEX E: CITY OF CANANDAIGUA

long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-32).

**Table E-32. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	845

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the City of Canandaigua would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table E-33. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
City of Canandaigua	\$0	\$0



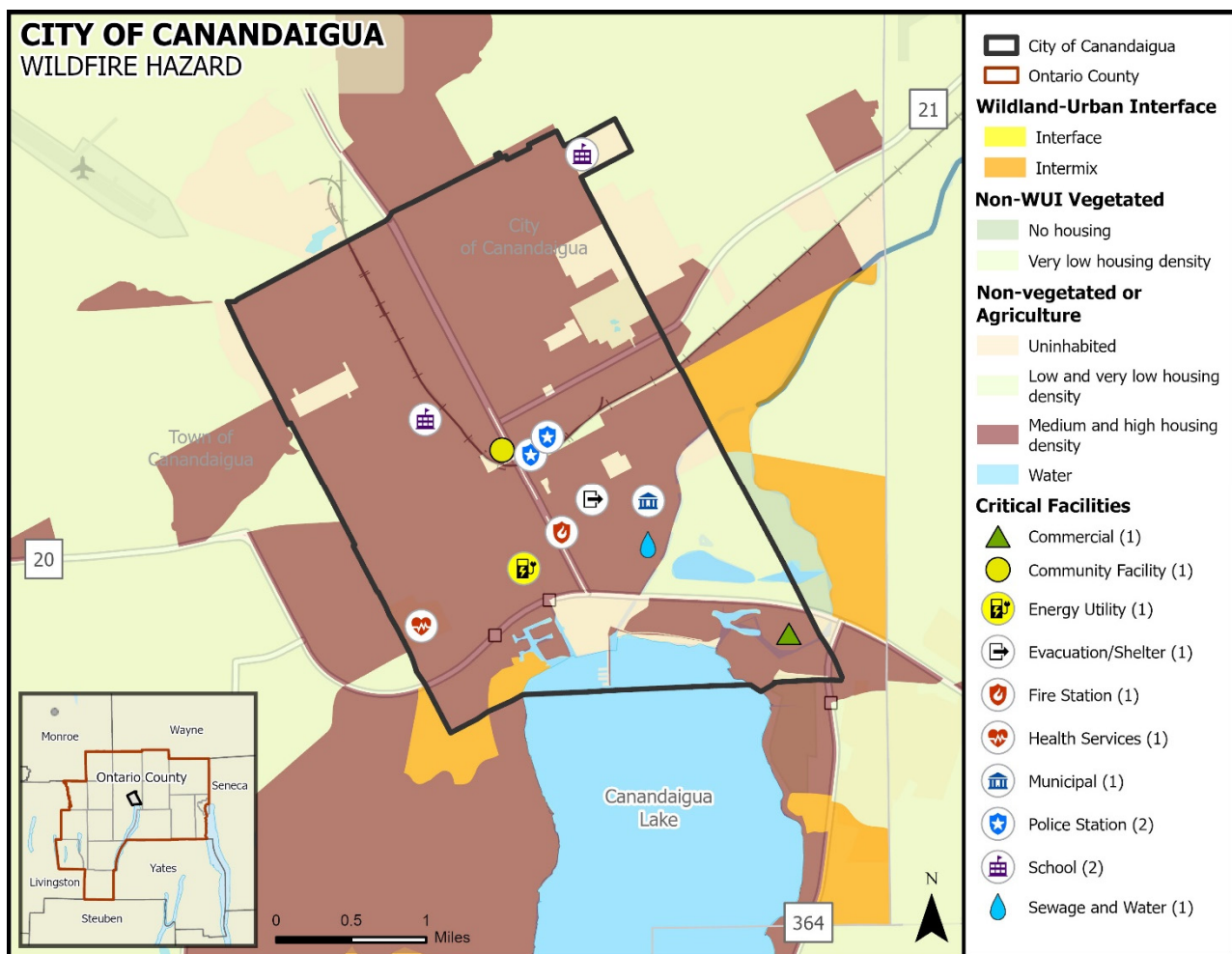
# ANNEX E: CITY OF CANANDAIGUA

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure E-4). The City of Canandaigua planning area is considered at low risk for wildfires with limited WUI areas.

Figure E-4. City of Canandaigua Wildland Urban Interface Map<sup>14</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>14</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX E: CITY OF CANANDAIGUA

of Forest Protection issues color coded danger alerts. The entire planning area, including the City of Canandaigua, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

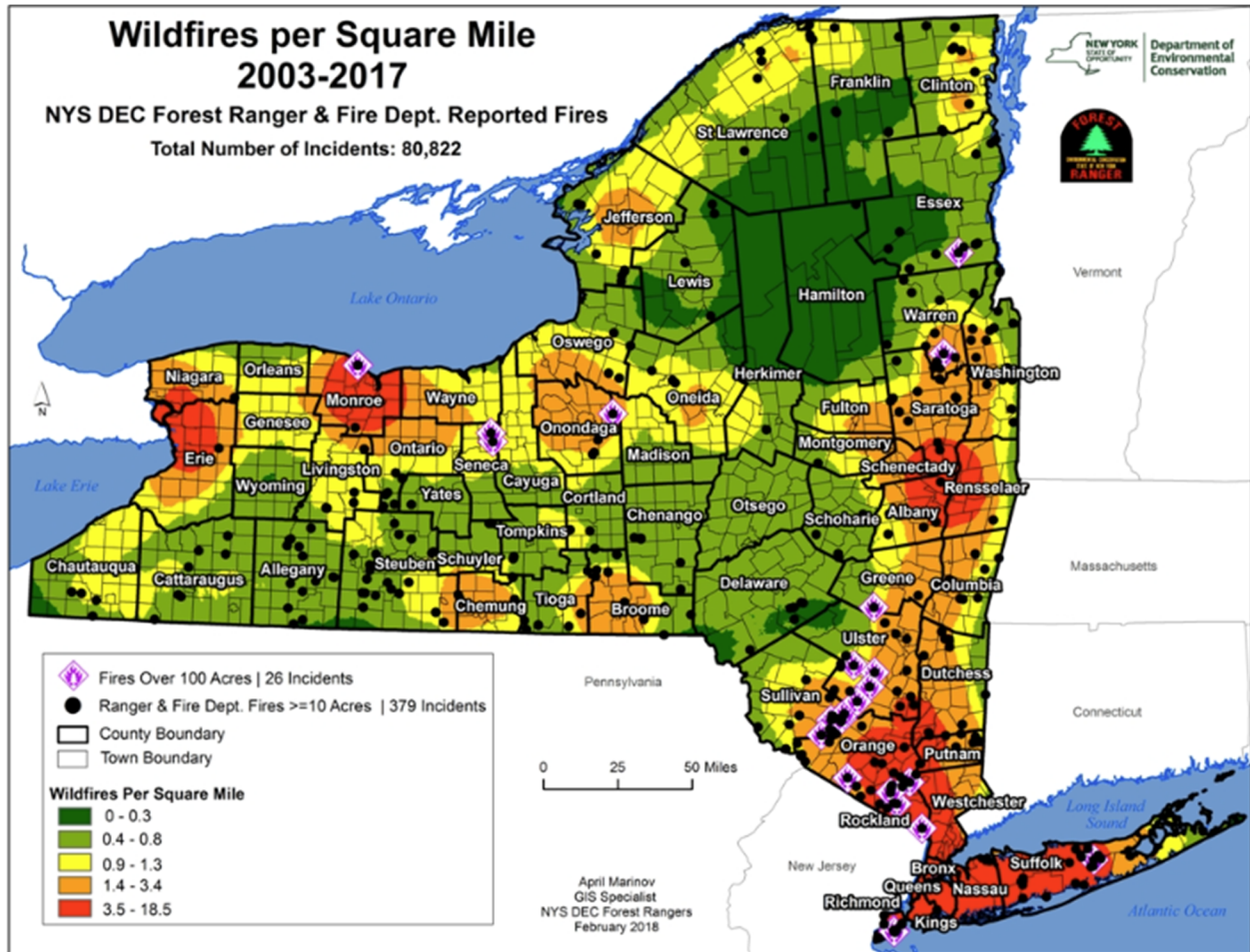
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure E-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.

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Figure E-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The City of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

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**Table E-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

For the City of Canandaigua, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

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### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, 26 wind events are known to have occurred in the City of Canandaigua. Table E-35 presents information on known historical events impacting the City of Canandaigua.

**Table E-35. Historical Wind Events, 1956-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	6/22/1996	Unknown	0	3	\$170,105	\$0
	6/25/1998	Unknown	0	0	\$21,804	\$0
	6/30/1998	Unknown	0	0	\$21,804	\$0
	7/9/2000	Unknown	0	0	\$25,709	\$0
	7/10/2001	50	0	0	\$13,349	\$0
	7/10/2001	50	0	0	\$25,029	\$0
	7/28/2002	55	0	0	\$65,779	\$0
	5/13/2004	50	0	0	\$12,530	\$0
	5/22/2004	50	0	0	\$23,493	\$0
	8/16/2007	50	0	0	\$11,396	\$0
	9/11/2007	50	0	0	\$14,206	\$0
	6/26/2009	51	0	0	\$20,597	\$0
	4/27/2011	51	0	0	\$19,753	\$0
	5/29/2011	50	0	0	\$13,107	\$0
	9/11/2011	50	0	0	\$19,580	\$0
	6/8/2015	50	0	0	\$18,616	\$0
	5/1/2017	56	0	0	\$30,255	\$0
	5/1/2017	52	0	0	\$14,522	\$0
	7/23/2017	50	0	0	\$14,519	\$0
	10/15/2017	50	0	0	\$12,007	\$0
	10/15/2017	50	0	0	\$12,007	\$0
	7/19/2020	51	0	0	\$28,577	\$0

<sup>15</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

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JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	7/29/2020	51	0	0	\$5,715	\$0
	7/29/2020	51	0	0	\$5,715	\$0
	8/27/2020	51	0	0	\$1,139	\$0
	6/16/2022	51	0	0	\$2,188	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>3</b>	<b>\$623,501</b>	<b>\$0</b>

Based on the list of historical wind events for the City of Canandaigua, five of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the City of Canandaigua can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The City of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table E-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Canandaigua	2 Commercial Facilities, 2 Community Facilities, 2 Energy Utility Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 2 Police Stations, 1 Residential Community Facility, 2 Schools, 1 Sewage and Water Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 62 manufactured homes are located in the City of Canandaigua (11 percent of total housing stock). In addition, 71 percent (approximately 3,931 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant wind events.

**Table E-37. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
City of Canandaigua	3,931	62

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a



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long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the City of Canandaigua’s population live below the poverty level (Table E-38).

**Table E-38 Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Canandaigua	845

Structural impacts of wind events experienced in the City of Canandaigua would be considered Limited, with less than 10 percent of property destroyed, and critical facilities shut down for less than 24-hours. However, with three injuries, the impact is considered “Major” with multiple injuries possible depending on the severity of the event. Over the 67.5 year reporting period there has been a total of \$623,501 damages (in 2023 dollars) in the City of Canandaigua due to wind events. The estimated average annual loss from a wind event is \$9,237.

**Table E-39. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
City of Canandaigua	\$623,501	\$9,237

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.



# ANNEX E: CITY OF CANANDAIGUA

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>CC-1: Invasive Aquatic Species</b>	
<b>Name of Jurisdiction:</b>	City of Canandaigua
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Canandaigua Lake is a risk of being infested with invasive aquatic species which could cause great economic hardship and storm water management issues.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	<ol style="list-style-type: none"> <li>1) Information/education programs.</li> <li>2) Watercraft stewards/inspection and organism removal.</li> <li>3) Boat washing stations or other methods of washing boats.</li> </ol>
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	CC-2: Invasive Species Plan
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Develop public education and boat inspection programs to minimize introduction of invasive species into Canandaigua Lake.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Public health concerns. Minimize potential damage to resources on which the recreation and tourism industry depend.
<b>Estimated Cost:</b>	\$10,000 education materials.
<b>Other Factors Considered:</b>	\$100,000 – hire boat inspectors (if need be) \$40,000 – set up boat washing stations (if need be)
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	City of Canandaigua Parks and Recreation with support from Finger Lakes PRISM (Partnership for Regional Invasive Species Management)
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Parks and Recreation, Canandaigua Lake Watershed Council
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Canandaigua Lake Watershed Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Defer to Plan Update. On-going. Since 2016 the City has been actively implementing a watercraft steward inspection program in partnership with multiple state and local entities. The City has an active educational campaign with both printed materials and billboards, and has also implemented a boat washing station for 2 seasons and are planning to implement the boat washing station for a 3rd year in 2024 with the goal of creating a permanent boat washing station.

## ANNEX E: CITY OF CANANDAIGUA

<b>Previous Action Worksheet CC-2: Sucker Brook Flooding</b>	
<b>Name of Jurisdiction:</b>	City of Canandaigua
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	The floodplain and flooding risk along Sucker Brook includes approximately 220 homes and some critical facilities such as the Primary/Elementary School and an Electric and Gas Facility Structure (Rochester Gas & Electric). Some heavily traveled intersections (e.g., North Pearl and West Gibson) are also potentially located in the floodplain. The official floodplain has what is believed to be inaccuracies that could prevent properties from preparing for flood or causes other properties unnecessary additional expenses for flood preparation.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Upstream detention to mitigate the flooding that occurs within the City. Stabilization of the banks along Sucker Brook to prevent sediment and erosion. The overall goal is
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	CC-3: Update Sucker Brook Flood Maps
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Assess bank stabilization needs and develop maps that correctly identify risk to critical facilities, residents, schools and businesses located in the Sucker Brook floodway and provide protection of same from flooding with resiliency to withstand a 500yr flood event.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Better communicate the risk to those in harm's way and develop risk management plan.
<b>Estimated Cost:</b>	\$50,000 for H&H study
<b>Other Factors Considered:</b>	Consult with the Oneida County SWCD, which has a strong and successful bank stabilization program
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	City of Canandaigua Department of Public Works
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2021
<b>Potential Fund Sources:</b>	Initial consultation with partner SWCD agency willing to share subject matter B expertise
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Canandaigua Lake Watershed Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Defer to Plan Update: For the upstream detention, additional sites are being pursued, but there is no way of predicting if, or when, additional detention can be constructed. Bank stabilization is being looked at in multiple locations. No specific work is currently planned. Update action/project consideration summary to include "The overall goal is to

## ANNEX E: CITY OF CANANDAIGUA

	<p>lower the flood event peak flow as much as practical.” Update “Action or Project Intended for Implementation”, “Summary of Evaluation”, to reflect Ontario County SWCD, not Oneida County. As for progress and effectiveness, the City implemented 2 large scale flood and water quality retention projects in 2017 and 2018 that can provide over 100 acre feet of storage.</p>
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# ANNEX E: CITY OF CANANDAIGUA

## NEW MITIGATION ACTIONS

CITY OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	5.4	Flood	Culvert and drainage upgrades: Throughout the City culverts are undersized and in need of replacement. The hydraulic capacity of this structure may not comply with commonly accepted standards. This project protects the community and reduces risk of flooding.	Upgrade undersized stormwater drains and culverts.	No	Further review required	On-going	City Public Works Department, with consultation of SWCD	\$500,000 based on site location and need	Reduce risk of flood damages through improved drainage capacity; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
2	5.4	Flood	Drainage improvements: Inadequate drainage systems cause flooding, damage to roadways, and create hazardous driving conditions for motorists. This project protects the community and reduces risk of flooding.	Increase drainage capacity; add stormwater detention and/or retention basins as deemed necessary to reduce flood risk.	No	Further review required	On-going	City Public Works Department	\$500,000 based on site location and need	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
3	2.3	Flood	Debris Maintenance Program: The build-up of debris can compromise the performance of bridges and culverts, jeopardizing these installations (as well as the associated roadways). This project protects the community and reduces risk of flooding.	Adopt and implement a program for clearing debris from bridges, drains, and culverts.	No	Further review required	24 months	City Public Works Department	Staff Time	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget	M	Safety/Security

# ANNEX E: CITY OF CANANDAIGUA

CITY OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
4	4.2	Flood	Sucker Brook Flooding: Extreme rainfall events result in high stormwater flow rates, which result in the destabilization of stream channels (including streambanks), that causes erosion and deposition within these streams, as well as stream migration. The erosion of streambanks and migration of stream channels can jeopardize adjacent buildings, bridges, culverts, roadways, utilities, and other infrastructure. This project protects the community and reduces risk of flooding.	Assess bank stabilization needs and develop maps that correctly identify risk to critical facilities, residents, schools, and businesses located in the Sucker Brook floodway. Implement necessary flood mitigation measures to reduce the flood event peak flow.	No	Further review required	On-going	City Public Works Department, with consultation of SWCD	\$50,000 H&H study at each site location in floodway	Reduce the risk of flood damage due to erosion or scour during flood events. Reduce risk of injuries to residents; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
5	2.1	Infestation	Invasive Aquatic Species at Canandaigua Lake: Need aquatic invasive species prevention. Vegetative invasive species can also disrupt drainage ditches.	Continue to promote watercraft inspection program, boat washing stations with the goal of creating a permanent boat washing facility, and educational campaign through printed materials and public billboards.	No	Further review required	On-going	City Parks and Recreation Department with support from Finger Lakes PRISM (Partnership for Regional Invasive Species Management)	\$10,000 education materials. \$100,000 – hire boat inspectors (if need be) \$40,000 – 3 boat washing stations	Reduces risk to issues water intake. Reduce risk to economic hardship and potential storm water management issues.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Communication

# ANNEX E: CITY OF CANANDAIGUA

CITY OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
6	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
7	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	City Council, O Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX E: CITY OF CANANDAIGUA

CITY OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
8	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX E: CITY OF CANANDAIGUA

CITY OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
11	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or	No	N/A	36 months	City Council, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX E: CITY OF CANANDAIGUA

CITY OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).									
12	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	City Council, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
13	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	City Council, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	City Council, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX E: CITY OF CANANDAIGUA

CITY OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
15	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service providers customers by mail or paperless enrollment.	No	N/A	36-60 months	City Council, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	City Council, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
17	3.1	Sanitary Sewer Overflows	Public Awareness Program: The effects of illicit sanitary connections has been experienced throughout the County causing backups on private property and sanitary sewer overflows (SSOs) at the Water Resource Recovery Facility (WRRF).	Work with local water districts on educating the public the problems of and solutions to sources of infiltration and inflow (I&I) which can include sending property owners letters that informs them of the importance of scheduling inspections, education on what I&I sources are, etc.	Yes	N/A	On-going	City Council, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to identify and correct connection failures and illegal connections.	Local Budget	H	Safety/Security, Communication

# ANNEX E: CITY OF CANANDAIGUA

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	City of Canandaigua
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	X
Drought Contingency Plan	X
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	X
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	X
Open Space Plan	X
Stormwater Management Plan	X
Transportation Plan	X
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX E: CITY OF CANANDAIGUA

COMMUNITY CAPABILITY CHECKLIST	City of Canandaigua
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	X
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX E: CITY OF CANANDAIGUA

COMMUNITY CAPABILITY CHECKLIST	City of Canandaigua
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	X
Property Acquisition Program	
Public Education/ Awareness Programs	X
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	X
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	X
Floodplain Administrator	X
GIS Specialist	X
Personnel with Hazard Knowledge	X
Planners	X
Public Information Official	X
Resource Development/ Grant Writer	X



A photograph of trees with vibrant red autumn leaves is positioned in the lower half of the page. The trees are silhouetted against a clear blue sky. The text "ANNEX F TOWN OF CANANDAIGUA" is overlaid on the bottom left of this image in a large, white, bold, sans-serif font.

**ANNEX F  
TOWN OF  
CANANDAIGUA**



# ANNEX F: TOWN OF CANANDAIGUA

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- Note to the Reviewer ..... 2
  - Population and Demographics ..... 3
  - Population Growth ..... 4
  - Future Development ..... 4
  - Plan Maintenance ..... 5
  - Public Participation ..... 5
- Hazard Profiles ..... 7
  - Dam Failure ..... 7
  - Drought ..... 8
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## ANNEX F: TOWN OF CANANDAIGUA

### JURISDICTION PROFILE

#### OVERVIEW

The Town of Canandaigua is located in Ontario County, New York, with a population just over 1,600. According to the United States Census Bureau, the town has a total area of 62.53 square miles, of which 56.80 square miles is land and 5.74 square miles, or 9.04%, is water. The town surrounds the City of Canandaigua at the north end of Canandaigua Lake, one of the figure lakes. It is approximately 30 miles southeast of Rochester and is served by the Greater Rochester International Airport. Conjoined U.S. Route 20 and NY State Route 5 cross the north part of the town. Figure F-1 shows the general location of the Town of Canandaigua.

### TOWN OF CANANDAIGUA CONTACT INFORMATION

Name: Jared Simpson

Title: Town Supervisor

Phone: (585) 377-4733

Address: 5440 Route 5 & 20 West,  
Canandaigua, NY 14424

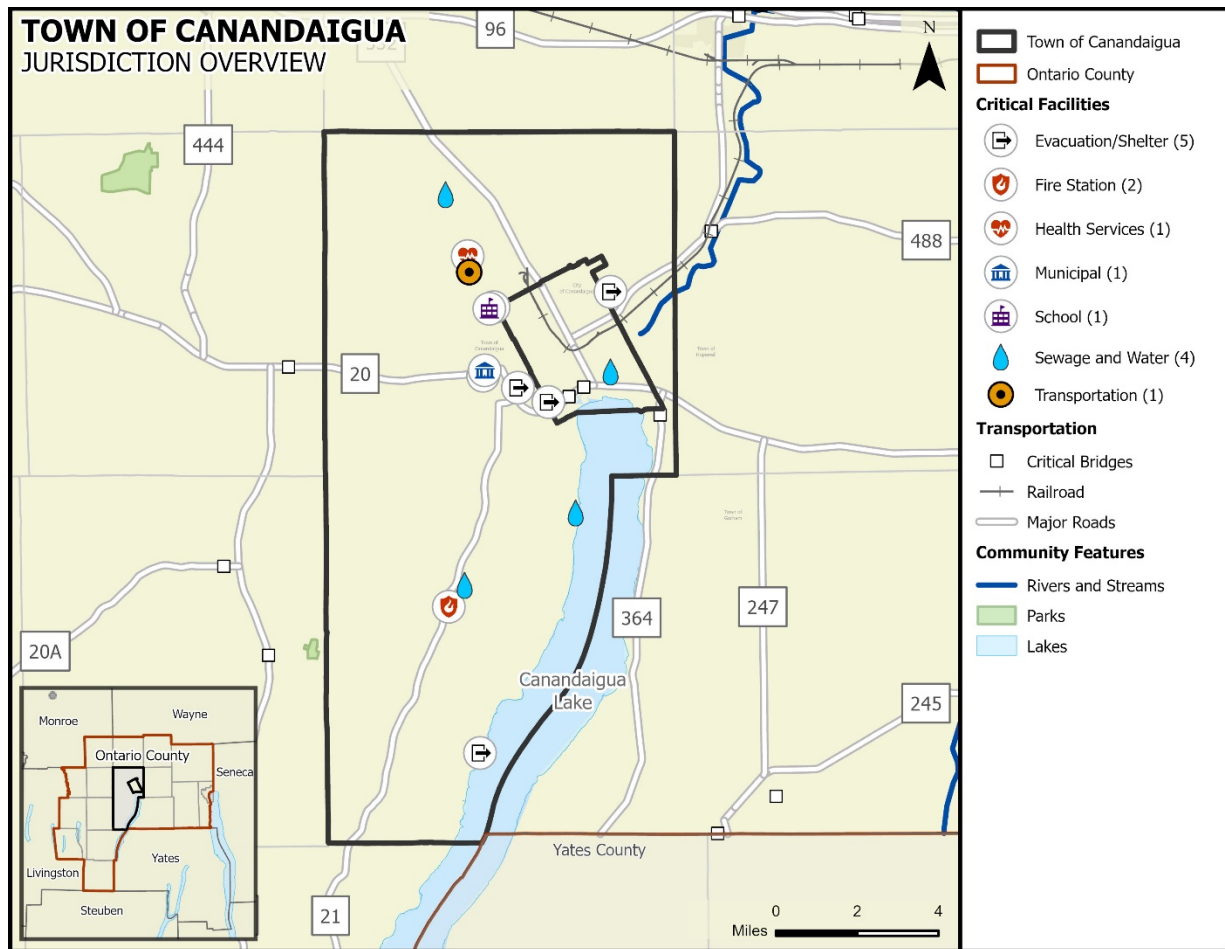
Email: [jsimpson@townofcanandaigua.org](mailto:jsimpson@townofcanandaigua.org)

### NOTE TO THE REVIEWER

It is noted that the Town of Canandaigua and the City of Canandaigua are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

# ANNEX F: TOWN OF CANANDAIGUA

Figure F-1. Town of Canandaigua Planning Area<sup>1</sup>



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Canandaigua has an official population of 11,109 residents, a 10.9 percent increase since the 2010 census. Table F-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Canandaigua using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

## ANNEX F: TOWN OF CANANDAIGUA

**Table F-1. Population Distribution for the Town of Canandaigua**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Canandaigua	10,020	10,994	9.27%	353	2,241	902

### POPULATION GROWTH

The official 2020 Town of Canandaigua population is 11,109. Overall, the Town of Canandaigua experienced an increase in population between 1990 and 2020 of 55.2 percent, or an increase by 3,949 residents. Between 2010 and 2020, the Town of Canandaigua experienced a population growth. Table F-2 provides historic change rates in the Town of Canandaigua.

**Table F-2. Population Growth for the Town of Canandaigua, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Canandaigua	7,160	7,649	10,020	11,109	3,949	55.2%	1,089	10.9%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Canandaigua might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table F-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX F: TOWN OF CANANDAIGUA

**Table F-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table F-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table F-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Canandaigua	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Canandaigua’s website. A total of 8 surveys were completed for the Town of Canandaigua. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX F: TOWN OF CANANDAIGUA

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Canandaigua's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX F: TOWN OF CANANDAIGUA

### HAZARD PROFILES

#### DAM FAILURE

The Town of Canandaigua is not profiling dam failure. The Town of Canandaigua does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.



# ANNEX F: TOWN OF CANANDAIGUA

## DROUGHT

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Town of Canandaigua can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Town of Canandaigua, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Canandaigua planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of Canandaigua:

**Table F-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

The population over 65 in the Town of Canandaigua is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 2,594 potentially vulnerable residents in the Town of Canandaigua based on age. In addition, an estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-6).

**Table F-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	2,241	353	902

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX F: TOWN OF CANANDAIGUA

## EXTREME COLD

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Town of Canandaigua can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Town of Canandaigua, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Canandaigua planning team members identified the following critical facilities (Table F-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Town of Canandaigua:

**Table F-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

The population over 65 in the Town of Canandaigua is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 2,594 potentially vulnerable residents in the Town of Canandaigua based on age. In addition, an estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-8).

**Table F-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	2,241	353	902

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX F: TOWN OF CANANDAIGUA

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Canandaigua can expect to experience an extreme heat event approximately once every year. This frequency supports a “Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Canandaigua, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Canandaigua planning team members identified the following critical facilities (Table F-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of Canandaigua:

**Table F-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

The population over 65 in the Town of Canandaigua is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 2,594 potentially vulnerable residents in the Town of Canandaigua based on age. In addition, an estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-10).

**Table F-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	2,241	353	902

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

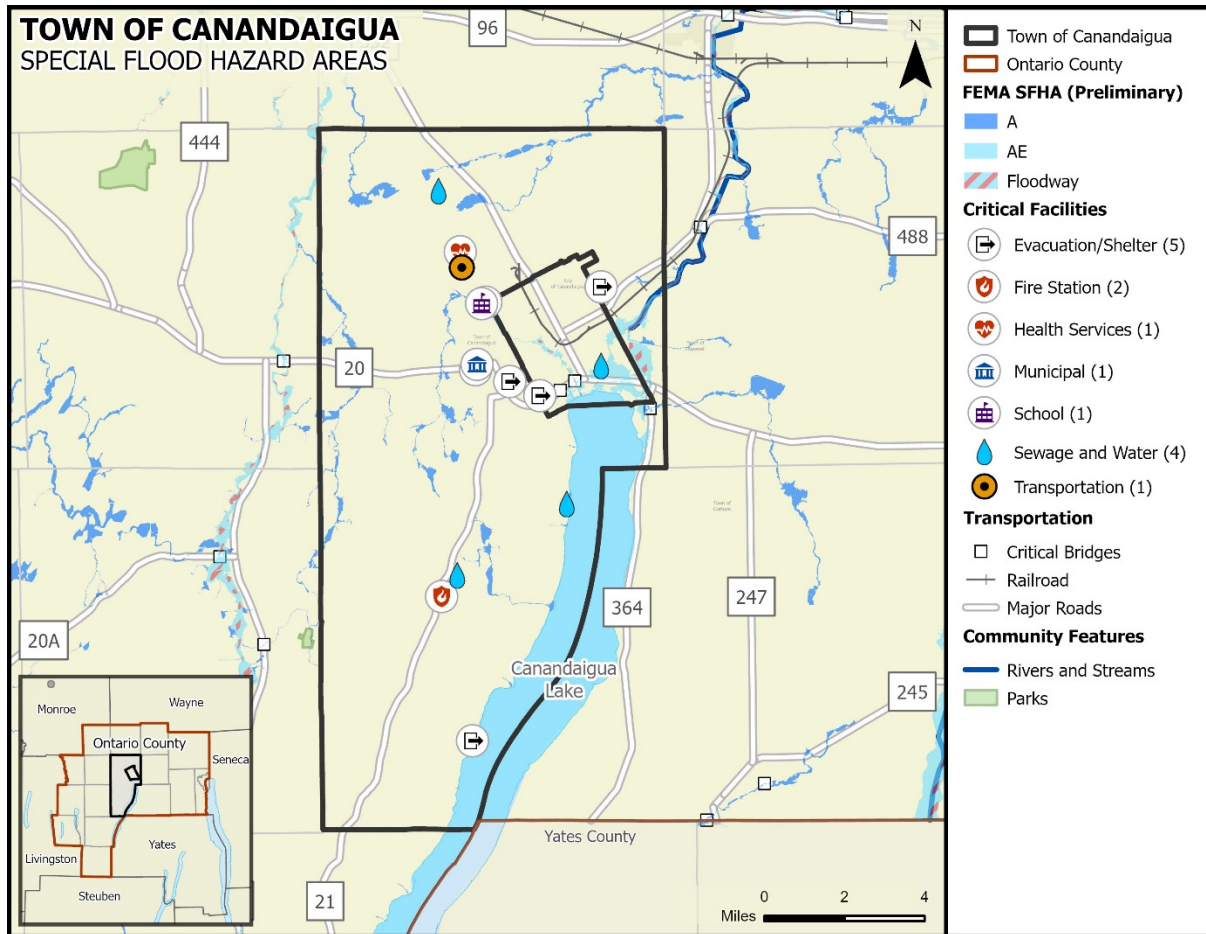
# ANNEX F: TOWN OF CANANDAIGUA

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Canandaigua, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Canandaigua, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure F-2.

Figure F-2. Estimated Flood Zones in the Town of Canandaigua<sup>8</sup>



### HISTORICAL OCCURRENCES

Table F-11 provides the historical occurrences of flood events for the Town of Canandaigua according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, 22 flood events were known to have impacted the Town of Canandaigua, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX F: TOWN OF CANANDAIGUA

**Table F-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	10/19/1996	0	0	\$93,547	\$0
	10/20/1996	0	0	\$93,547	\$0
	7/31/2000	0	0	\$42,849	\$0
	7/31/2000	0	0	\$42,849	\$0
	5/13/2004	0	0	\$15,662	\$0
	5/14/2004	0	0	\$7,831	\$0
	6/28/2010	0	0	\$40,764	\$0
	7/9/2010	0	0	\$13,585	\$0
	7/23/2017	0	0	\$60,495	\$0
	6/12/2023	0	0	\$0	\$0
	7/1/2023	0	0	\$0	\$0
	7/9/2023	0	0	\$501,000	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$912,129</b>	

Based on the list of historical flood events for the Town of Canandaigua, 3 reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Canandaigua can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Canandaigua planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table F-12 includes the critical facilities in the Town of Canandaigua located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in Section 9.

**Table F-12. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Town of Canandaigua	Outhouse Park	Evacuation center	1%
	County Road Canandaigua (West Lake Road)	Transportation	1%

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX F: TOWN OF CANANDAIGUA

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
	State Route 364 Canandaigua (East Lake Road)	Transportation	1%

Historic loss estimates due to flooding are presented in Table F-13 below.

**Table F-13. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Canandaigua	22	\$912,129	\$33,168

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table F-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	902

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table F-15 depicts the level of impact for the Town of Canandaigua.

**Table F-15. Town of Canandaigua Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Canandaigua	Limited	The Town of Canandaigua could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Canandaigua currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Canandaigua has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Canandaigua as a moderate-risk hazard during hazard

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.



## ANNEX F: TOWN OF CANANDAIGUA

ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Canandaigua Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table F-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table F-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Canandaigua	12/3/2009 <sup>11</sup>	5/2/2017	Good Standing	0

### REPETITIVE LOSS

Table F-17 shows repetitive loss and severe repetitive loss properties for the Town of Canandaigua.

**Table F-17. Repetitive Loss and Severe Repetitive Loss Properties**

JURISDICTION	BUILDING TYPE	NUMBER OF LOSSES
Town of Canandaigua	2-4 Family	0
	Assumed Condo	0
	Non-Residential	0
	Other Residential	0
	Single Family*	6

<sup>11</sup> New CAV/CAC planned for FY23.



# ANNEX F: TOWN OF CANANDAIGUA

## HAIL

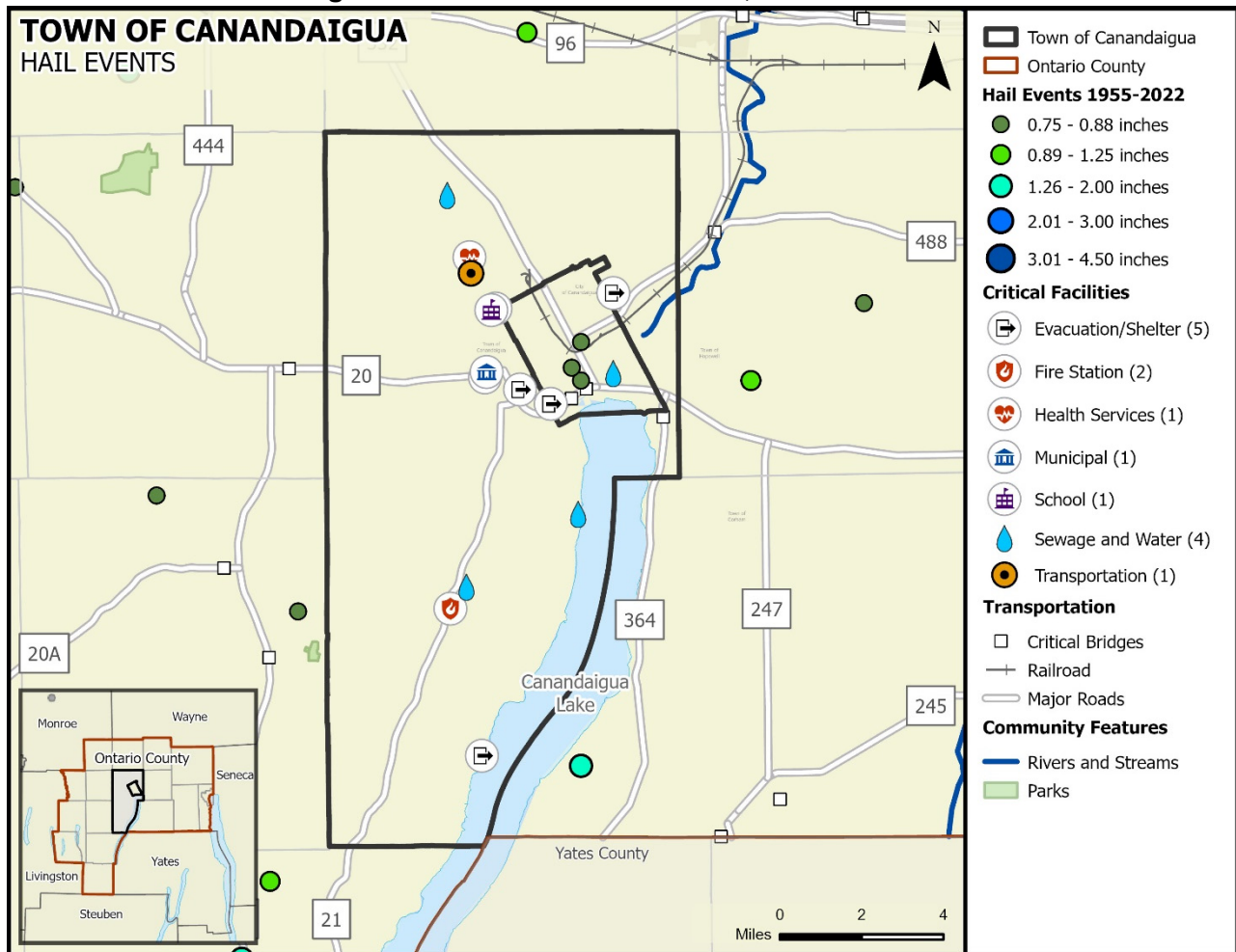
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure F-3 demonstrates that the Town of Canandaigua is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table F-18. A total of 4 reported historical hail events impacted the Town of Canandaigua between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of Canandaigua with latitude and longitude available were plotted (Figure F-3).

Figure F-3. Historical Hail Events, 1956-2023<sup>12</sup>



<sup>12</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX F: TOWN OF CANANDAIGUA

**Table F-18. Historical Hail Events, 1956-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	10/13/1999	0.75	0	0	\$26,412	\$0
	5/13/2004	0.75	0	0	\$7,831	\$0
	7/25/2006	0.75	0	0	\$11,643	\$0
	5/14/2017	0.75	0	0	\$0	\$0
<b>TOTALS</b>		<b>(Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$45,886</b>	<b>\$0</b>

Based on the list of historical hail events for the Town of Canandaigua, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Canandaigua can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table F-19. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

The U.S. Census data indicates a total of 161 (3 percent of total housing stock) manufactured homes located in the Town of Canandaigua. In addition, 29 percent (approximately 1,460 structures) of the housing structures in the Town of Canandaigua were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table F-20. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of Canandaigua	161	1,490

<sup>13</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

# ANNEX F: TOWN OF CANANDAIGUA

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-21).

**Table F-21. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	902

Overall, the total loss estimate of property and crops in the Town of Canandaigua is \$45,886 with an average annualized loss of \$680. Based on historic loss and damages, the impact of hail damages on the Town of Canandaigua can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table F-22. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Canandaigua	\$45,886	\$680

## ANNEX F: TOWN OF CANANDAIGUA

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Canandaigua can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Canandaigua, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Canandaigua planning team members identified the following critical facilities (Table F-23) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of Canandaigua:

**Table F-23. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

The population over 65 in the Town of Canandaigua is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 2,594 potentially vulnerable residents in the Town of Canandaigua based on age. In addition, an estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-24).

**Table F-24. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	2,241	353	92

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX F: TOWN OF CANANDAIGUA

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of Canandaigua is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area, including the Town of Canandaigua, has had no reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Canandaigua over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Canandaigua.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslides and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX F: TOWN OF CANANDAIGUA

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There have been 2 recorded lightning events in the Town of Canandaigua from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

**Table F-25. Historical Lightning Events, 1996-2023<sup>14</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	8/25/2011	0	0	\$32,683	\$0
	5/29/2016	0	0	\$43,150	\$0
<b>TOTALS</b>		<b>0</b>	<b>0</b>	<b>\$75,833</b>	

Based on the list of historical lightning events for the Town of Canandaigua, there have been no reported events since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Canandaigua is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Town of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table F-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

<sup>14</sup> Historical events are reported from January 1996 through June 2023; values are in 2023 dollars.

## ANNEX F: TOWN OF CANANDAIGUA

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-27).

**Table F-27. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	902

Historical losses and damages as a result of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the total loss estimate for the Town of Canandaigua (in 2023 dollars) is considered 75,833 with an average annualized loss of \$2,758 (Table F-28).

**Table F-28. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Canandaigua	\$75,833	\$2,758



# ANNEX F: TOWN OF CANANDAIGUA

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Canandaigua, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Canandaigua can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Canandaigua, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Canandaigua planning team members identified the following critical facilities (Table F-29) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of Canandaigua:

**Table F-29. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

The population over 65 in the Town of Canandaigua is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 2,594 potentially vulnerable residents in the Town of Canandaigua based on age. In addition, an estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-30).

**Table F-30. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	2,241	353	902

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX F: TOWN OF CANANDAIGUA

### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

According to the National Centers for Environmental Information (NCEI) Storm Events database, from January 1994 through August 2023, no tornado events are known to have impacted the Town of Canandaigua.

#### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Canandaigua can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table F-31. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 161 manufactured homes are located in the Town of Canandaigua (3 percent of total housing stock). In addition, 29 percent (approximately 1,490 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table F-32. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Canandaigua	1,490	161

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a

## ANNEX F: TOWN OF CANANDAIGUA

long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-33).

**Table F-33. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	902

The total loss estimate due to tornado events is \$0, having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the Town of Canandaigua would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities, and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table F-34. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Canandaigua	\$0	\$0

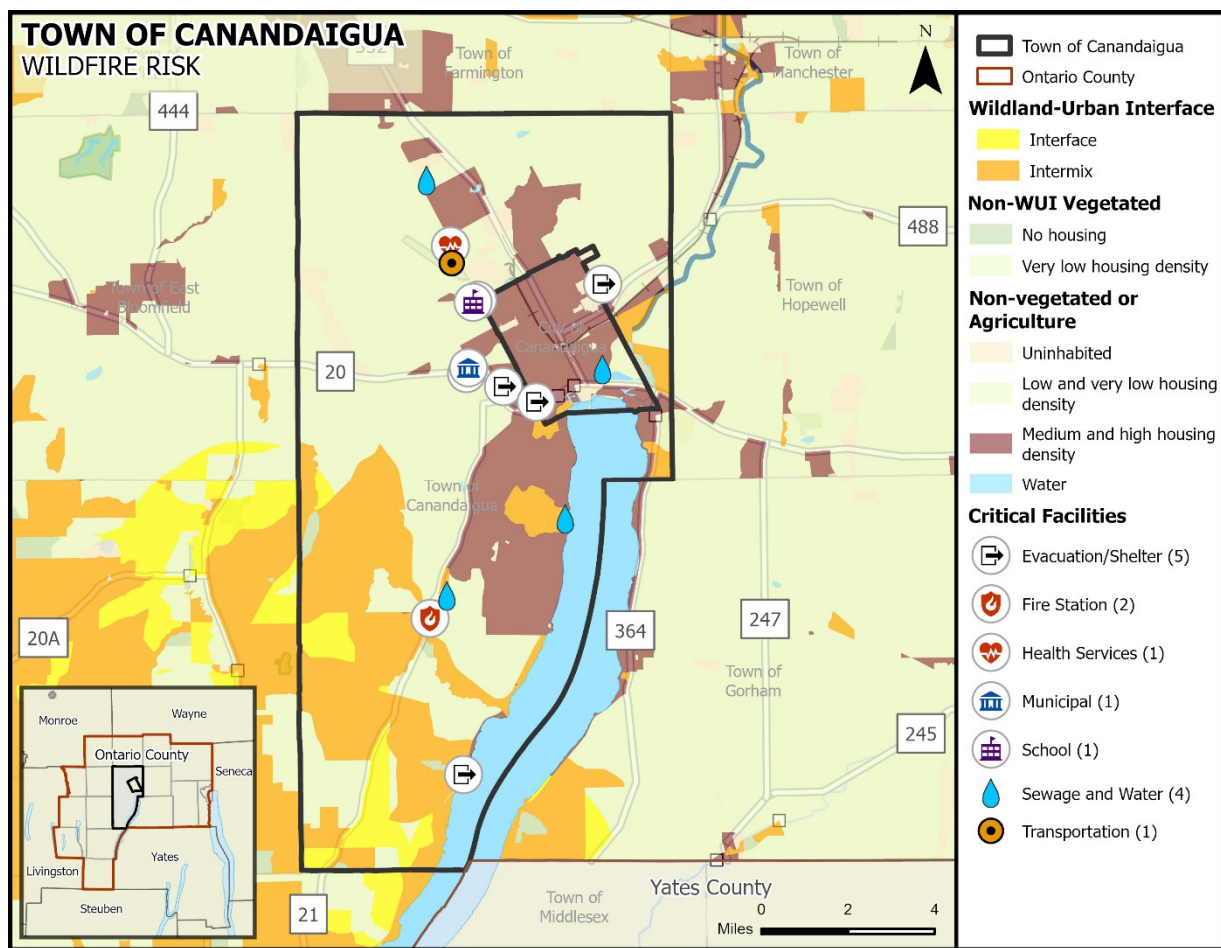
# ANNEX F: TOWN OF CANANDAIGUA

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure F-4). The Town of Canandaigua planning area is considered at low risk for wildfires with limited WUI areas.

Figure F-4. Town of Canandaigua Wildland Urban Interface Map<sup>15</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the

<sup>15</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX F: TOWN OF CANANDAIGUA

Town of Canandaigua, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

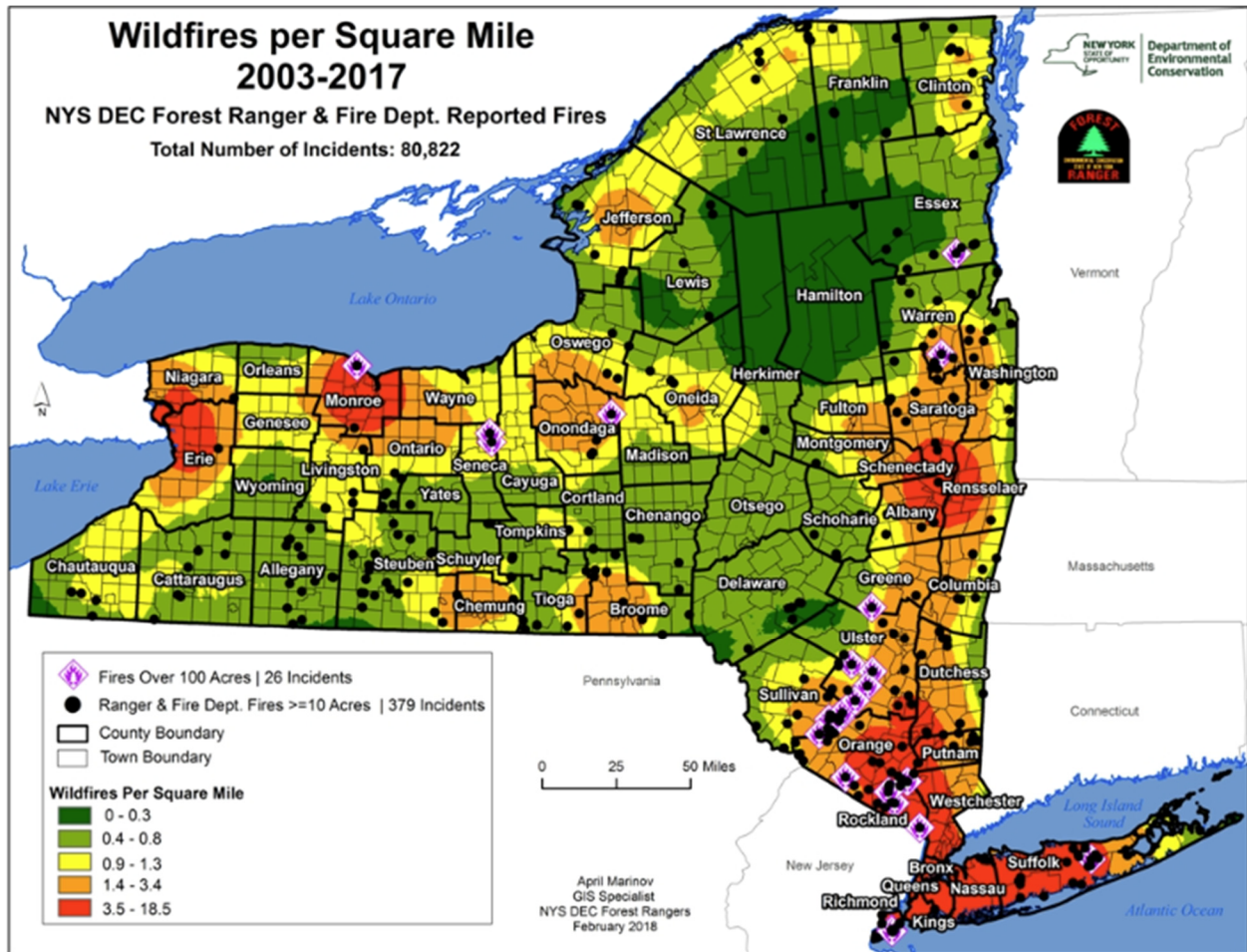
The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure F-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.



# ANNEX F: TOWN OF CANANDAIGUA

Figure F-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities

## ANNEX F: TOWN OF CANANDAIGUA

are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

**Table F-35. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

For the Town of Canandaigua, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.



## ANNEX F: TOWN OF CANANDAIGUA

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, 26 wind events are known to have occurred in the Town of Canandaigua. Table F-36 presents information on known historical events impacting the Town of Canandaigua.

**Table F-36. Historical Wind Events, 1956-2023<sup>16</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	6/22/1996	Unknown	0	3	\$170,105	\$0
	6/25/1998	Unknown	0	0	\$21,804	\$0
	6/30/1998	Unknown	0	0	\$21,804	\$0
	7/9/2000	Unknown	0	0	\$25,709	\$0
	7/10/2001	50	0	0	\$13,349	\$0
	7/10/2001	50	0	0	\$25,029	\$0
	7/28/2002	55	0	0	\$65,779	\$0
	5/13/2004	50	0	0	\$12,530	\$0
	5/22/2004	50	0	0	\$23,493	\$0
	8/16/2007	50	0	0	\$11,396	\$0
	9/11/2007	50	0	0	\$14,206	\$0
	6/26/2009	51	0	0	\$20,597	\$0
	4/27/2011	51	0	0	\$19,753	\$0
	5/29/2011	50	0	0	\$13,107	\$0
	9/11/2011	50	0	0	\$19,580	\$0
	6/8/2015	50	0	0	\$18,616	\$0
	5/1/2017	56	0	0	\$30,255	\$0
	5/1/2017	52	0	0	\$14,522	\$0
	7/23/2017	50	0	0	\$14,519	\$0
	10/15/2017	50	0	0	\$12,007	\$0
	10/15/2017	50	0	0	\$12,007	\$0
	7/19/2020	51	0	0	\$28,577	\$0

<sup>16</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX F: TOWN OF CANANDAIGUA

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Canandaigua	7/29/2020	51	0	0	\$5,715	\$0
	7/29/2020	51	0	0	\$5,715	\$0
	8/27/2020	51	0	0	\$1,139	\$0
	6/16/2022	51	0	0	\$2,188	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>3</b>	<b>\$623,501</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of Canandaigua, five of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Canandaigua can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Canandaigua planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table F-37. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Canandaigua	1 Energy Utility Facility, 5 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 1 Municipal Building, 1 School, 4 Sewage and Water Facilities, 1 Transportation (Air) Facility, 2 transportation (Roads and Routes) Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 161 manufactured homes are located in the Town of Canandaigua (3 percent of total housing stock). In addition, 29 percent (approximately 1,490 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant wind events.

**Table F-38. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Canandaigua	1,490	161

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a

## ANNEX F: TOWN OF CANANDAIGUA

long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Canandaigua’s population live below the poverty level (Table F-39).

**Table F-39. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Canandaigua	902

Structural impacts of wind events experienced in the Town of Canandaigua would be considered Limited, with less than 10 percent of property destroyed, and critical facilities shut down for less than 24-hours. However, with three injuries, the impact is considered “Major” with multiple injuries possible depending on the severity of the event. Over the 67.5-year reporting period there has been a total of \$623,501 damages (in 2023 dollars) in the Town of Canandaigua due to wind events. The estimated average annual loss from a wind event is \$9,237.

**Table F-40. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Canandaigua	\$623,501	\$9,237

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX F: TOWN OF CANANDAIGUA

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>T Canandaigua – 1: County Road 46 Electric Substation</b>	
<b>Name of Jurisdiction:</b>	Town of Canandaigua
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flooding. Critical facilities at risk include the RGE electric substation in a flood zone. Some roads are susceptible to flooding and closures. There is potential flood risk if future development is located near (or within) flood zones as predicted. Flood zone regulations and enforcement are important to providing protection from 500yr flooding events.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	<ol style="list-style-type: none"> <li>1) Communicate and coordinate with RG&amp;E on emergency response plan and hazard mitigation measures.</li> <li>2) Amend code to prevent damage to new or improved building structures in flood zones.</li> <li>3) Develop town staff capacity through certification in floodplain management.</li> </ol>
<b>Action or Project Description:</b>	<ol style="list-style-type: none"> <li>1) The RG&amp;E substation on County Road 46 (Tax Map # 84.00-1-18.000) is shown to be in a flood plain. Action to be considered includes contacting RG&amp;E to find out if they have an emergency response plan in the event the facility is compromised due to flooding or other hazard. Communication will also include determining RG&amp;E's interests in assessing and protecting the facility from flood risk, securing grants, etc. Rochester Gas and Electric 70; Farm View Drive; New Gloucester, ME 04260</li> <li>2) Update and adopt code.</li> <li>3) Add a Certified Floodplain Manager to town staff.</li> </ol>
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Ensure that the company and jurisdiction can operate in sync in the event of an emergency to maintain continuity of service and continuity of operations.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Canandaigua
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	Contact RG&E in 2019
<b>Potential Fund Sources:</b>	None
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	None
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Defer to Plan Update. There is still significant flooding at the CR 46 station. The challenge is that this sits near the border of the city of Canandaigua, the Town of Canandaigua, Town of Hopewell and an Ontario County road. Residents and the

## ANNEX F: TOWN OF CANANDAIGUA

	roadway floods. County engineers have been looking at this. This should continue.
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<b>Previous Action Worksheet</b>	
<b>T Canandaigua – 2: Inventory and flushing of fire hydrants</b>	
<b>Name of Jurisdiction:</b>	Town of Canandaigua
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Fire/Wildfire
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	Inventory and flushing of fire hydrants
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	T Canandaigua – 2
<b>Summary of Evaluation Benefits (losses avoided):</b>	Inventory and flushing are completed by water department staff supervised by the Town of Canandaigua Highway Water Superintendent
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Canandaigua Water
<b>Action/Project Priority:</b>	Priority
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Town Budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Annual Budgeting Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed. The Town has a plan in place to regularly flush and maintain hydrants and is now part of annual maintenance.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX F: TOWN OF CANANDAIGUA

<b>Previous Action Worksheet</b>	
<b>T Canandaigua – 3: Invasive Aquatic Species</b>	
<b>Name of Jurisdiction:</b>	Town of Canandaigua
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Infestation or spread of aquatic invasive species - Canandaigua Lake.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	<ol style="list-style-type: none"> <li>1) Work with the Canandaigua Lake Watershed Association, Canandaigua Lake Watershed Council, and Town of Canandaigua Environmental Conservation Board to inform residents about aquatic invasive species.</li> <li>2) Support watercraft inspections through a watercraft stewards' program and installation of boat washing stations at major public boat launches on Canandaigua Lake outside town boundaries and at Town's Onanda Park boat launch.</li> </ol>
<b>Action or Project Description:</b>	Public Information / Education
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Benefit- protection of Canandaigua Lake which is the source of drinking water for more than 60,000 residents
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	DEC grant, Canandaigua Watershed Council
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Coordinated by the Canandaigua Lake Watershed Manager Canandaigua Lake Watershed Management Plan with support from Finger Lakes PRISM
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Completed. The Town continues to work with the watershed council and the watershed manager to monitor invasive species. Education plans are consistent, there is a boat wash station in the city. The Town also has signage at parks where non-motorized boats launch.

# ANNEX F: TOWN OF CANANDAIGUA

## NEW MITIGATION ACTIONS

TOWN OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	3.3	Drought, Flood, Wildfire	Landscape Ordinance: Explore alternative ways to promote mitigation and preserve the land within the Town.	Adopt landscape ordinance (selection and planting guidelines). Review parcels in recognized steep slopes and add planting requirements.	No	N/A	12 months	Town Board	Staff Time	Reduce impact on groundwater; Minimize impacts of expansive soils; Reduce rainfall runoff volume and risk of flooding; Reduce risk and spread of wildfire.	Local Department Budget	L	Communication, Safety/Security
2	4.3	Flood, Wildfire	Restrict Development: There are high-risk areas within the Town.	Restrict future development in high-risk areas. Ordinance committee could review projects within potential flood zones and wildfire locations.	No	Further review required	12 months	Town Board and Ordinance Committee	Staff Time	Reduce risk of damages to new structures and infrastructure through building restrictions in high-risk areas.	Local Department Budget	L	Communication, Safety/Security
3	1.2	Extreme Heat, Flood, Hail, Lightning, Ice Storm, Snow Storm, Tornado, Wildfire, Wind	NOAA Weather Radios: There are some rural and remote areas within the town-limits.	Acquire and distribute NOAA weather radios.	No	N/A	24-36 months	Town Board	\$50,000	Reduce risk to residents through improved communication and early warning.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Communication
4	1.1	Flood, Hail, Ice Storm, Tornado, Snow Storm, Wind	StormReady Program: The Town should consider enhancing current preparedness practices.	Obtain certification in the Nation Weather Service StormReady Program.	No	N/A	12-24 months	Town Board	\$10,000	Reduce risk to residents by educating the public on how to prepare for hazards and disasters.	Local Department Budget; HMGP, BRIC, CDBG, PA	L	Communication



# ANNEX F: TOWN OF CANANDAIGUA

TOWN OF CANANDAIGUA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
5	1.2	Flood, Snow, Storm, Tornado, Wildfire, Wind	Emergency Notification System: The general public may not have the means to access educational material or notification alerts. By considering an area wide notification system ensures community members are aware of risk.	Look to coordinate with County to activate locally an area-wide telephone Emergency Notification System ("Reverse 911") through exploring software and potential vendors.	No	N/A	24-36 months	Town Board in coordination with 911 Center.	\$100,000	Reduce risk to residents through improved communication and early warning.	406 (when applicable) local bonds Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Communication
6	5.4	Flood	Drainage System Improvements: Inadequate drainage systems cause flooding, damages to roadways, and create hazardous driving conditions for motorists.	Assess drainage system. As identified, increase drainage capacity; add stormwater detention and/or retention basins as deemed necessary to reduce flood risk. Multiple properties located. Expand some drainage projects. Secure more land for more retention parcels. Coordinate with City especially along Sucker Brook Corridor.	No	Further review required	24 – 48 months	Town Board and Public Works	\$1,000,000	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
7	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado,	Generator for critical facilities: During power outages, critical facilities would be without lights, communications, and maintenance equipment/machinery. The operations are basically brought to a halt. This project helps ensure critical facilities	Assessment of critical facilities that are in need of back-up power sources. Acquire and install generators with hard wired quick connections at identified critical facilities.	Yes	Further review required	24 months	Town Board and Public Works	\$1,000,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Energy (Power/Fuel)

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
		Wildfire, Wind, and Utility Failure	continue to provide services during a power outage caused by unforeseen events.										
8	1.4	Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Tree Trimming Program: Tree maintenance is a priority and a plan to address continued maintenance to reduce risk of further damage will need to be developed and implemented. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Adopt and implement a routine tree trimming program that clears tree limbs near power lines and/or hanging in right-of-way; Remove dead trees from right-of way and drainage systems on a scheduled basis.	No	N/A	12 months	Town Board in coordination with location utility companies	Staff Time	Reduce damages to infrastructure; Ensure continuity of services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget, Staff time	L	Safety/Security
9	4.2	Flood	Feasibility Study at Outhouse Park, 2550 Outhouse Road, Canandaigua, NY 14424: There is potential flood risk as location is near (or within) flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Town of Canandaigua will complete a feasibility study for Outhouse Park to identify the current flood risk to the shelter, determine if mitigation is needed, assess alternatives, implement feasible alternative for flood reduction, protecting the structure to the 0.2% flood level. The study will also evaluate alternative facilities outside of the 1% and .2% flood risk areas.	Yes	Further review required	24-36 months	Town Board	Cost determined based on feasibility assessment	Reduce risk of damage or injuries through flood mitigation at high-risk structures. Ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Communication
10	4.2	Flood	Feasibility Study at CR 16 (West Lake Road) and State Route 364 (East Lake Road): There is potential flood risk as location is near (or within)	Town of Canandaigua will complete a feasibility study for CR 16 (West Lake Road) and State Route 364 (East Lake	Yes	Further review required	24-36 months	Town Board	Cost determined based on feasibility assessment	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function; alternate	Local Department Budget; HMGP, BRIC,	H	Safety/Security, Communication

# ANNEX F: TOWN OF CANANDAIGUA

TOWN OF CANANDAIGUA PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			flood zones. CR 16 in Canandaigua (West Lake Road) is identified as the only access road/egress for residents on the west side of the lake. State Route 364 in Canandaigua (East Lake Road) is identified as the only access road/egress for some residents on East Lake Road. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Road) to identify the current flood risk to these access roads, determine if mitigation is needed, assess alternatives, implement feasible alternative for flood reduction, protecting the infrastructure to the 0.2% flood level. The study will also evaluate the feasibility of creating alternate egress routes.						egress to protect lives and ensure continuity of emergency services.	CDBG, PA 406 (when applicable) local bond		
11	5.4	Flood	County Road 46 Electric Substation (Tax Map # 84.00-1-18.000): This site is near the border of the City of Canandaigua, the Town of Canandaigua, Town of Hopewell and an Ontario County Road and is a critical facility these communities. There is potential flood risk if future development is located near (or within) flood zones as predicted. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	In conjunction with RG&E's assess flood risk and implement necessary flood mitigation measures to reduce flooding at site location. Explore if alternative mitigation needs to be assessed and completed to reduce roadway flooding.	Yes	Further review required	24 months – On-going	Town Board and Ontario County Engineering Department, in conjunction with RG&E's	Staff Time	Reduce flood risk; reduce damages and risk of injuries or fatalities; protect lives, ensure accessibility of shelter facility.	Local Department Budget, Staff time	M	Safety/Security. Energy (Power/Fuel)
12	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

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TOWN OF CANANDAIGUA PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.									
13	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
14	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

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			planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.									
15	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
16	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX F: TOWN OF CANANDAIGUA

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			damages to their property.	injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.									
17	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
18	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the	Secure funding for education and best management practices to reduce damage from invasive species on	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation and	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

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			community and storm water management.	county-wide own properties and private own properties.				Cooperative Extension					
19	3.3	Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
20	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
21	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication



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22	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
23	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX F: TOWN OF CANANDAIGUA

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Canandaigua
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	X
Drought Contingency Plan	
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	
Construction Site Stormwater Runoff Control	
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	X

## ANNEX F: TOWN OF CANANDAIGUA

COMMUNITY CAPABILITY CHECKLIST	Town of Canandaigua
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX F: TOWN OF CANANDAIGUA

COMMUNITY CAPABILITY CHECKLIST	Town of Canandaigua
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	X
Public Education/ Awareness Programs	X
Stream Maintenance Program	X
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	X
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	X
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	X
Public Information Official	X
Resource Development/ Grant Writer	





**ANNEX G**  
**VILLAGE OF CLIFTON**  
**SPRINGS**



# ANNEX G: VILLAGE OF CLIFTON SPRINGS

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# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## JURISDICTION PROFILE

### OVERVIEW

The Village of Clifton Springs is located in Ontario County, New York, with a population just over 2,200. The village is located primarily in the Town of Manchester, but the eastern part is in the Town of Phelps. The village is southeast of Rochester. According to the United States Census Bureau, the village has a total area of 1.48 square miles, all of which is land. The Village of Clifton Springs is immediately south of both the NY State Thruway (Interstate 90) and NY State Route 96. County Road 13 passes through the village of Main Street. The village takes its name from local mineral springs. Figure G-1 shows the general location of the Village of Clifton Springs.

## VILLAGE OF CLIFTON SPRINGS CONTACT INFORMATION

Name: James Keys

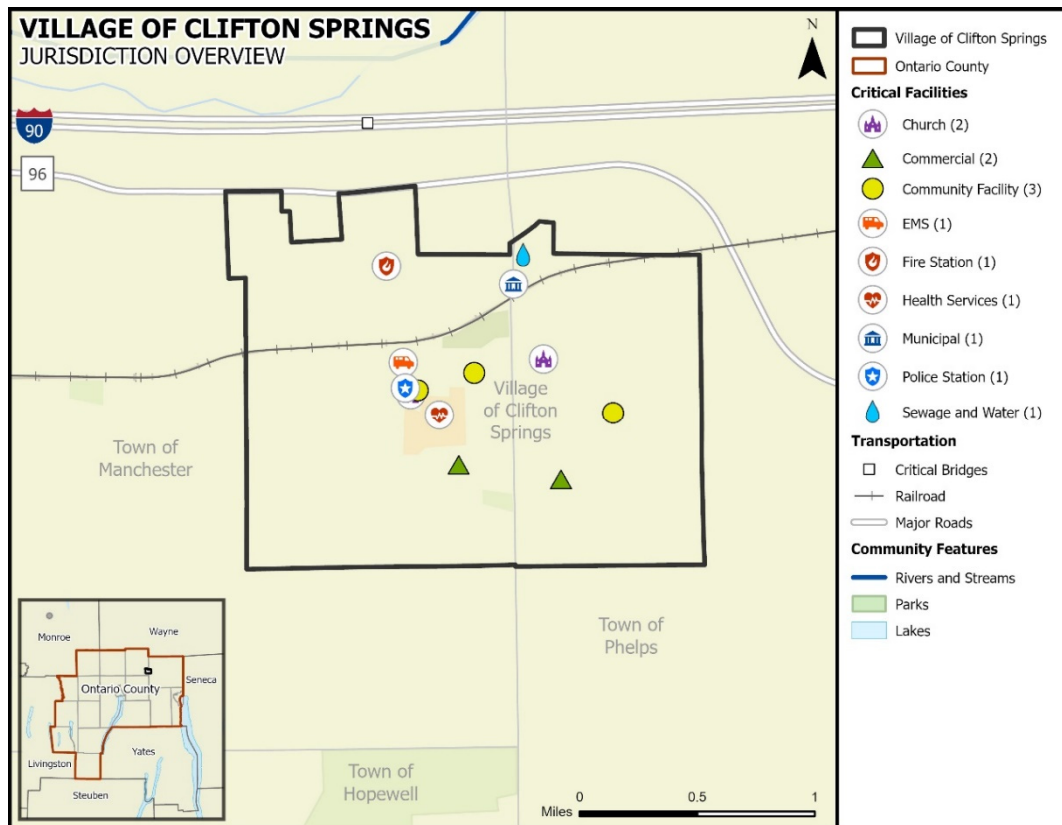
Title: Mayor

Phone: (585) 462-5151

Address: 1 West Main Street, Clifton Spring, NY 14432

Email: [clerk@sliftonspringsny.org](mailto:clerk@sliftonspringsny.org)

Figure G-1. Village of Clifton Springs Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)



## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Village of Clifton Springs has an official population of 2,209 residents, a 3.9 percent increase since the 2010 census. Table G-1 summarizes select characteristics of vulnerable or sensitive populations in the Village of Clifton Springs using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table G-1. Population Distribution for the Village of Clifton Springs**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Village of Clifton Springs	2,127	1,954	-8.13%	65	475	221

### POPULATION GROWTH

The official 2020 Village of Clifton Springs population is 2,209. Overall, the Village of Clifton Springs experienced an increase in population between 1990 and 2020 of 1.6 percent, or an increase by 34 residents. Between 2010 and 2020, the Village of Clifton Springs experienced a population growth. Table G-2 provides historic change rates in the Village of Clifton Springs.

**Table G-2. Population Growth for the Village of Clifton Springs, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Village of Clifton Springs	2,175	2,223	2,127	2,209	34	1.6%	82	3.9%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Village of Clifton Springs might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table G-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

**Table G-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table G-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table G-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Village of Clifton Springs	Mayor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Village of Clifton Springs’ website. A total of 6 surveys were completed for the Village of Clifton

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

Springs. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Village of Clifton Springs's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### HAZARD PROFILES

#### DAM FAILURE

The Village of Clifton Springs is not profiling dam failure. The Village of Clifton Springs does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Village of Clifton Springs, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Clifton Springs, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Village of Clifton Springs planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Village of Clifton Springs:

**Table G-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

The population over 65 in the Village of Clifton Springs is estimated at 24 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 507 potentially vulnerable residents in the Village of Clifton Springs based on age. In addition, an estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-6).

**Table G-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	475	65	221

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Village of Clifton Springs, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Clifton Springs, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Clifton Springs planning team members identified the following critical facilities (Table G-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Village of Clifton Springs:

**Table G-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

The population over 65 in the Village of Clifton Springs is estimated at 24 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 507 potentially vulnerable residents in the Village of Clifton Springs based on age. In addition, an estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-8).

**Table G-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	475	65	221

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Village of Clifton Springs, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Clifton Springs, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Clifton Springs planning team members identified the following critical facilities (Table G-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Village of Clifton Springs:

**Table G-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

The population over 65 in the Village of Clifton Springs is estimated at 24 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 207 potentially vulnerable residents in the Village of Clifton Springs based on age. In addition, an estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-10).

**Table G-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	475	65	221

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.



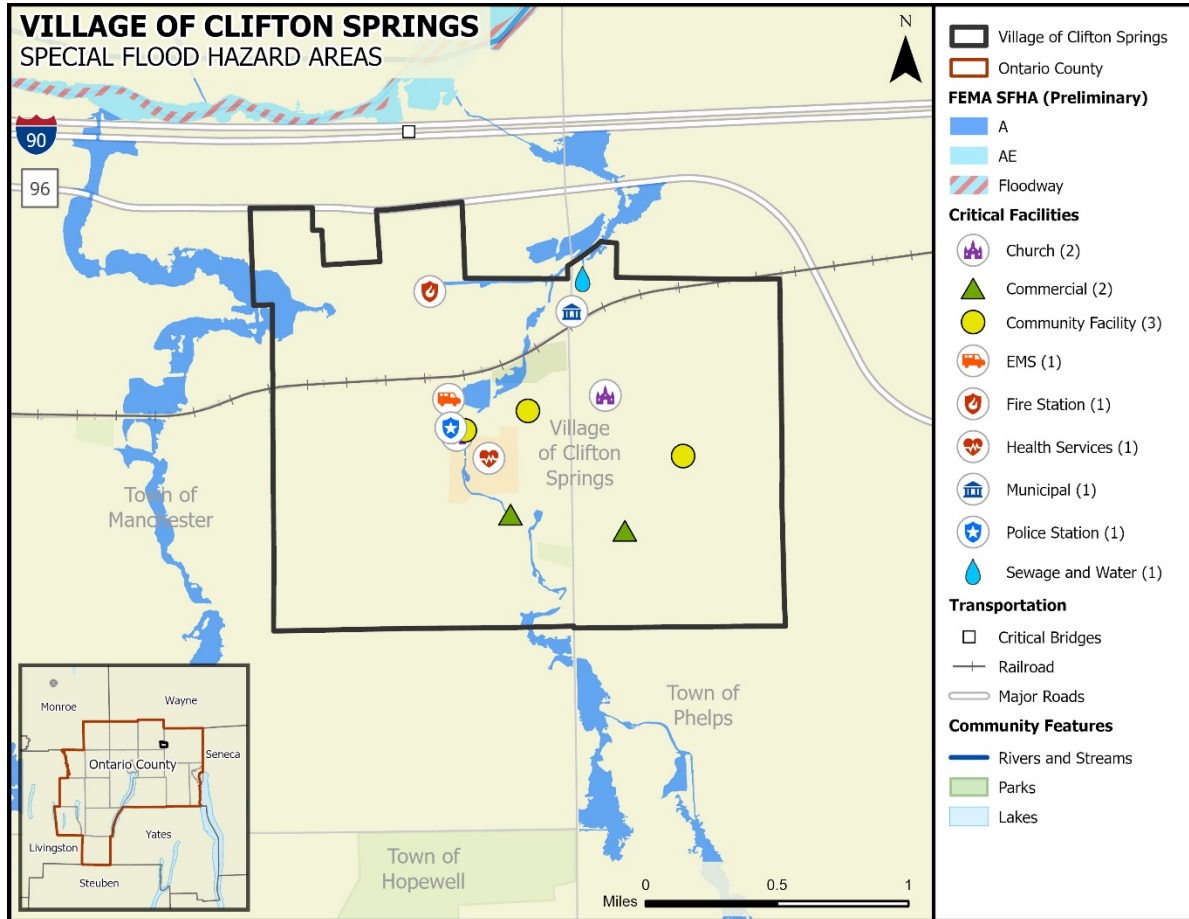
# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard boundary maps with no established base flood elevations are available in the Village of Clifton Springs. The location of estimated flood zones for the Village of Clifton Springs, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure G-2.

**Figure G-2. Estimated Flood Zones in the Village of Clifton Springs<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table G-11 provides the historical occurrences of flood events for the Village of Clifton Springs according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, no flood events were known to have impacted the Village of Clifton Springs, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Clifton Springs planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table G-11 includes the critical facilities in the Village of Clifton Springs located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in Section 9.

**Table G-11. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Village of Clifton Springs	Foster Block	Residential	1%

Historic loss estimates due to flood are presented in Table G-12 below.

**Table G-12. Potential Annualized Losses, 1996-2023<sup>9</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Clifton Springs	0	\$0	\$0

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table G-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	221

The severity of flood events varies depending on the relative risk to citizens and structures located within each jurisdiction. Table G-14 depicts the level of impact for the Village of Clifton Springs.

<sup>9</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

**Table G-14. Village of Clifton Springs Impact**

JURISDICTION	IMPACT	DESCRIPTION
Village of Clifton Springs	Limited	The Village of Clifton Springs could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Village of Clifton Springs currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Village of Clifton Springs has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Village of Clifton Springs as a low-risk hazard during hazard ranking activities at the Risk Assessment Workshop. However, many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Village of Clifton Springs Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table G-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table G-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Village of Clifton Springs	N/A	N/A	Good Standing	3

### *REPETITIVE LOSS*

The Village of Clifton Springs currently has no repetitive loss or severe repetitive loss properties.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence across the planning area demonstrates that the Village of Clifton Springs is vulnerable to hail events overall. However, no reported historical hail events impacted the Village of Clifton Springs between January 1955 through August 2023. Events reported to NCEI and NOAA databases may not represent all hail events to have occurred during the past 67.5 years.

#### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Village of Clifton Springs planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail the hail hazard profile (in Section 10).

**Table G-16. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

The U.S. Census data indicates a total of 18 (2 percent of total housing stock) manufactured homes located in the Village of Clifton Springs. In addition, 85 percent (approximately 700 structures) of the housing structures in the Village of Clifton Springs were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table G-17. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Village of Clifton Springs	18	700

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-18).

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

**Table G-18. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	221

Overall, the total loss estimate of property and crops in the Village of Clifton Springs is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Village of Clifton Springs can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table G-19. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Clifton Springs	\$0	\$0

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Village of Clifton Springs, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Clifton Springs, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Clifton Springs planning team members identified the following critical facilities (Table G-20) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Village of Clifton Springs:

**Table G-20. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

The population over 65 in the Village of Clifton Springs is estimated at 24 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 507 potentially vulnerable residents in the Village of Clifton Springs based on age. In addition, an estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-21).

**Table G-21. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	475	65	221

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Village of Clifton Springs is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. No landslide incidents have been reported in the Village of Clifton Springs.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Village of Clifton Springs over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Village of Clifton Springs.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.



# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Village of Clifton Springs from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Village of Clifton Springs is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Village of Clifton Springs planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table G-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-23).

**Table G-23. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	221

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Village of Clifton Springs due to lightning are considered negligible.

**Table G-24. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Clifton Springs	\$0	\$0

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Village of Clifton Springs, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Clifton Springs, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Clifton Springs planning team members identified the following critical facilities (Table G-25) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Village of Clifton Springs:

**Table G-25. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

The population over 65 in the Village of Clifton Springs is estimated at 24 percent of the Village’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 507 potentially vulnerable residents in the Village of Clifton Springs based on age. In addition, an estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-26).

**Table G-26. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	475	65	221

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### TORNADO

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, from January 1994 through August 2023, no tornado events are known to have impacted the Village of Clifton Springs.

#### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

#### VULNERABILITY AND IMPACT

The Village of Clifton Springs planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table G-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 18 manufactured homes are located in the Village of Clifton Springs (2 percent of total housing stock). In addition, 85 percent (approximately 700 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table G-28. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Clifton Springs	700	18

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

long-term stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Village of Clifton Springs’ population live below the poverty level (Table G-29).

**Table G-29. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	221

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the Village of Clifton Springs would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table G-30. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Village of Clifton Springs	\$0	\$0

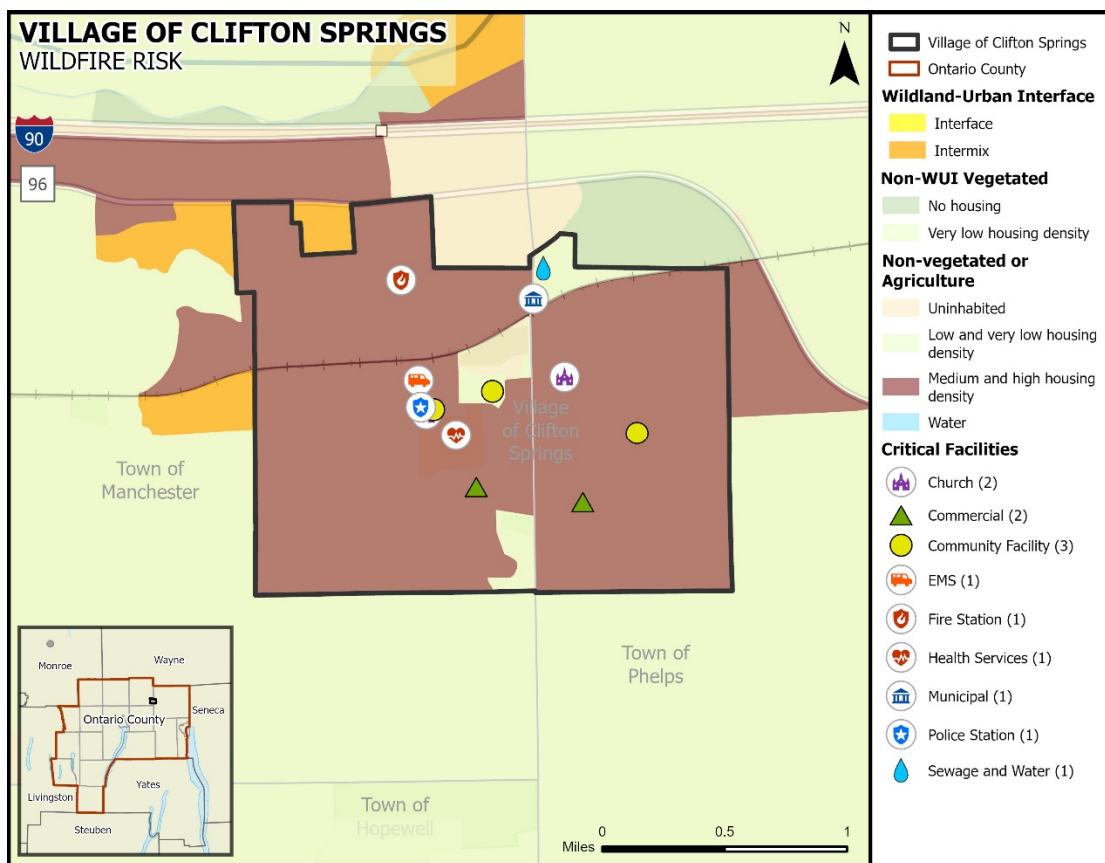
# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure G-3). The Village of Clifton Springs planning area is considered at low risk for wildfires with limited WUI areas.

Figure G-3. Village of Clifton Springs Wildland Urban Interface Map<sup>10</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the Village of Clifton Springs, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

<sup>10</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### *EXTENT*

Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

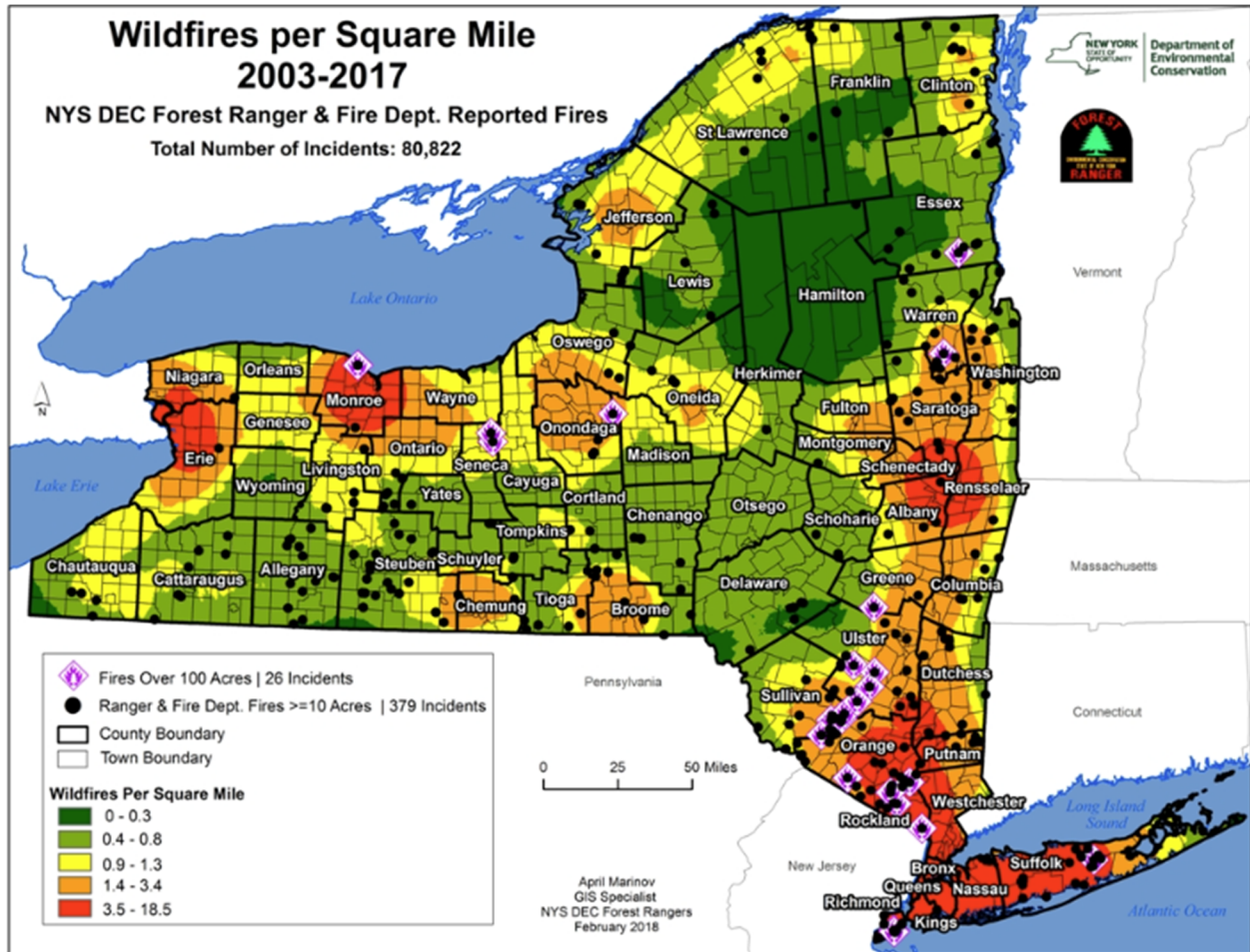
The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure G-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.



# ANNEX G: VILLAGE OF CLIFTON SPRINGS

Figure G-4. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Village of Clifton Springs planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

**Table G-31. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

For the Village of Clifton Springs, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, six wind events are known to have occurred in the Village of Clifton Springs. Table G-32 presents information on known historical events impacting the Village of Clifton Springs.

**Table G-32. Historical Wind Events, 1956-2023<sup>11</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Village of Clifton Springs	8/28/1994	Unknown	0	0	\$99,386	\$0
	6/2/1998	Unknown	0	0	\$36,340	\$0
	6/28/2006	50	0	0	\$11,678	\$0
	5/13/2014	50	0	0	\$12,449	\$0
	6/10/2015	52	0	0	\$18,616	\$0
	7/20/2021	51	0	0	\$1,085	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$179,554</b>	<b>\$0</b>

Based on the list of historical wind events for the Village of Clifton Springs, one of the reported events have occurred since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Clifton Springs can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

#### VULNERABILITY AND IMPACT

The Village of Clifton Springs planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

<sup>11</sup> Historical events are reported from January 1968 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

**Table G-33. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Clifton Springs	1 Emergency Medical Services (EMS) Station, 1 Fire Station, 1 Health Services Facility, 1 Municipal Building, 1 Police Station, 3 Residential Community Facilities, 1 Sewage and Water Facility, 1 School

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 18 manufactured homes are located in the Village of Clifton Springs (2 percent of total housing stock). In addition, 85 percent (approximately 700 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant wind events.

**Table G-34. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Clifton Springs	700	18

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Village of Clifton Springs' population live below the poverty level (Table G-35).

**Table G-35 Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Clifton Springs	221

Impact of wind events experienced in the Village of Clifton Springs would be considered "Limited," with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$179,554 damages (in 2023 dollars) in the Village of Clifton Springs due to wind events. The estimated average annual loss from a wind event is \$2,660.

**Table G-36. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Clifton Springs	\$179,554	\$2,660

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>VCS-1: Re-build Kendall and Silver Streets and Improve Drainage</b>	
<b>Name of Jurisdiction:</b>	Village of Clifton Springs
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Sediment and erosion control measures are needed especially in high drainage areas. Upgrading and improving drainage is important (storm drains are cleaned annually and rebuilt on a regular basis to avoid problems).
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Re-build Kendall Street and Silver Street in the future and improve drainage. This will not happen until Broad Street borrowing is paid off.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VCS-1: Re-build Kendall Street and Silver Street and improve drainage
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Re-build Kendall Street and Silver Street and improve drainage. We will continue to install concrete gutters in areas, providing we can do this within our budget.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Approximately four years ago Broad Street was rebuilt. New storm drains were installed. This has really helped manage drainage on that street. On several streets the Village has installed concrete gutters which have also helped with drainage.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
	\$20,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board/Street Department
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	Village savings and borrowing, hopefully some grant funding
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Stormwater Management Program
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

<b>Previous Action Worksheet</b>	
<b>VCS-2: Permanent generator at sewer lift station and/or larger generator for sewer plant</b>	
<b>Name of Jurisdiction:</b>	Village of Clifton Springs
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Generators are important need to maintain and enhance.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Consider a permanent generator at the sewer lift station. Would need to evaluate if this is even feasible. Also, a larger generator that could operate all of the sewer plant would be very beneficial and provide service during 500yr flood events.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VCS-2: Permanent generator at sewer lift station and/or larger generator for sewer plant
<b>Name of Action or Project:</b>	VCS-2: Permanent generator at sewer lift station and/or larger generator for sewer plant
<b>Action or Project Description:</b>	The Village has one sewer lift station. When the power goes out the Village has to take a portable generator to the site to keep the pump station operating. Having a generator in place (if possible) would provide continual operation.
<b>Summary of Evaluation Benefits (losses avoided):</b>	The Village has purchased – installed generators at the Village Hall, /Police Department. Also, extra portable generators have been purchased. This has helped to keep essential services going during power outages. The Village has a number of generators, and all are serviced professionally on a regular basis, and all are permanent generators are automatically tested weekly.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board
<b>Action/Project Priority:</b>	Low
<b>Timeline for Completion:</b>	2023 – A larger generator at the sewer plant and a permanent generator at the lift station would require engineering.
<b>Potential Fund Sources:</b>	Sewer Fund Revenue, possible grant opportunity for a generator to operate all the sewer plant. Goal would be a very large generator that is trailer mounted that could be used by other municipalities if needed.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Stormwater Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	



## ANNEX G: VILLAGE OF CLIFTON SPRINGS

<b>Previous Action Worksheet</b>	
<b>VCS-3: Water infrastructure improvements</b>	
<b>Name of Jurisdiction:</b>	Village of Clifton Springs
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Hydrant maintenance and inventory is important. Currently maintained and flushed annually and replaced when needed.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	The water infrastructure remains a concern as it is approximately 100 years old. Any opportunity to replace old main, water valves, or hydrants is addressed as needed.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	VCS-3: Evaluate cost of water infrastructure improvements - replacement of old water mains, water valves and hydrants especially on Kendall St and Silver St
<b>Action or Project Description:</b>	As needed, we have replaced numerous hydrants throughout the water system. It is important to continue with this. Also hoping soon to replace a portion of the water line on Kendall Street and we will replace any hydrants along that line at the same time. Should all of Kendall Street or Silver Street get re-built around 2023, we are hopeful water line and hydrants along that line would be replaced at that time.
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	It is important to continue with the annual maintenance and replacement of hydrants. This is proactive for the water department. Cost to purchase and install each hydrant \$400 Cost of main lines to be estimated.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Water Department
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	Continual on the maintenance, around 2023 on Kendall Street or Silver Street
<b>Potential Fund Sources:</b>	Water Fund Revenue, borrowing for the Kendall Street or Silver Street project.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Stormwater Management Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Completed and Defer to Plan Update. On-going maintenance as needed.

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

<b>Previous Action Worksheet</b>	
<b>VCS-4: Drainage improvements near Kendall St and monitoring of Sulphur Brook</b>	
<b>Name of Jurisdiction:</b>	Village of Clifton Springs
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flooding is a major concern, significant flooding in the past - Kendall Street ditch needs improvements (widening and deepening ditch to increase flow on North side of Village); Sulphur Brook could pose a flood risk. Need to clean, deepen, and straighten Sulphur Brook to mitigate flooding and improve drainage. Installing rip rap (rocking) has helped improve the flow. Flood damage prevention needs include promotion/outreach.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Possible rebuild of Kendall Street around 2023. Portions of the creek wall on private property are deteriorating and cracking and could cause problems in the future.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VCS-4: Drainage improvements near Kendall St and monitoring of Sulphur Brook
<b>Name of Action or Project:</b>	VCS-4: Drainage improvements near Kendall St and monitoring of Sulphur Brook
<b>Action or Project Description:</b>	Continue to improve drainage where we are able when we can. Should Kendall Street be selected as the next street for major improvements (to be determined around 2023) we will address better drainage on that street at that time. Continue to monitor the Sulphur Brook.
<b>Summary of Evaluation Benefits (losses avoided):</b>	The Village crew maintains the ditch on Kendall Street (not the property owner) and this has helped with keeping the ditch open and flowing when needed. The rip rap continues to help with the flow of Sulphur Creek.
<b>Estimated Cost:</b>	Cost to maintain banks of Sulphur Creek: \$50,000
<b>Other Factors Considered:</b>	Drainage improvements: \$25,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board/Street Department
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	Continual with possible major work in 2023
<b>Potential Fund Sources:</b>	Village savings and borrowing for re-build of Kendall Street, if this happens around 2023. Hopefully grant money as well.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## NEW MITIGATION ACTIONS

VILLAGE OF CLIFTON SPRINGS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Flood	Feasibility Study at Foster Block apartments, 7 Crane St, Clifton Springs, NY 14432: There is potential flood risk as location is near (or within) flood zones. Located in a Special Flood Hazard Area, this building is 4 story, 44 unit, low income residential housing complex. Mitigation alternatives are limited due to the size of the structure and the historic status of the building. Floodproofing is not considered as a feasible alternative if residential space occupies the first floor. Identifying alternative housing locations outside of the SFHA may be part of the study. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Village of Clifton Springs will complete a feasibility study for the historic Foster Block building to identify the current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the structure to the 0.2% flood level. Alternatives to consider may include relocation of vulnerable populations, floodproofing on the first level/commercial space and elevating residential units to higher floors; drainage improvements to reduce flood risk at the site.	Yes	Further review required	24-36 months	Village Board and Public Works	Cost determined based on feasibility assessment	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function; reduce emergency response required during flood events.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Communication
2	3.1	Extreme Heat, Drought	Drought Education Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide	Through the Village quarterly newsletter, the Village of Clifton Springs will encourage citizens to take water saving measures, such as installing low flow water saving shower heads and toilets,	No	N/A	12 months	Village Board	\$250 Staff Time	Promote hazard awareness and protect residents from potential injuries and damage. Reduce the risk of drought and properly respond in the event of drought.	Local Department Budget, Staff time	L	Communication

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

VILLAGE OF CLIFTON SPRINGS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			information on mitigation measures residents can employ to reduce damages to their property.	turning water flow off while brushing teeth or during other cleaning activities, adjust sprinklers to water the lawn and not the sidewalk or street, running the dishwasher and washing machine. Throughout the Village only when they are full, checking for leaks in plumping or dripping faucets, installing rain capturing devices for irrigation.									
3	5.4	Flood	Re-build Kendall and Silver Streets and Improve Drainage: Extreme rainfall events result in high stormwater flow rates, which can result in damage to downstream infrastructure and also result in the destabilization of stream channels (including streambanks), that causes erosion and deposition within these streams, as well as stream migration. The erosion of streambanks and migration of stream channels can jeopardize existing infrastructure, including roads, bridges, and buildings. This project would protect the community and reduce flooding.	Assess need for upgrading and improving drainage system.	No	Further review required	24-36 months Annual maintenance of drains	Village Board and Public Works	\$30,000	Implementation/expansion of this program would result in prompt design and construction of stormwater debris basins with the goal of capturing / controlling stormwater debris to protect downstream drainage structures.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
4	1.4	Flood	Water infrastructure improvements: Inadequate	Upgrade/replacement of water mains, water valves	No	Further review	On-going	Village Water Department	Staff Time	Reduce risk of flood damages through	Local Department	M	Safety/Security

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

VILLAGE OF CLIFTON SPRINGS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			drainage systems along cause and hydrants especially flooding, damage to roadways, on Kendall St and Silver St. and create hazardous driving conditions for motorists. This project would protect the community and reduce flooding.			required				improved drainage capacity; Reduce risk of injuries to residents; Reduce burden on emergency services during and after a flood event.	Budget, Staff time		
5	5.4	Flood	Drainage improvements near Kendall St and monitoring of Sulphur Brook: Inadequate drainage systems along cause flooding, damages to roadways, and create hazardous driving conditions for motorists. This project would protect the community and reduce flooding.	Improve drainage where identified. Continue to monitor and maintain banks associated with Sulphur Brook.	No	Further review required	24 months On-going maintenance for Sulphur Brook	Village Board and Streets Department	\$35,000 for Kendall St improvements \$60,000 for Sulphur Brook Maintenance	Reduce risk of flood damages through improved drainage capacity; Reduce risk of injuries to residents; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
6	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Generators at Sewer Plant: During power outages, the sewage plant is without lights, communications, and maintenance equipment/machinery. The operations are basically brought to a halt. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Acquire and install a permanent generator at sewer lift station and/or larger generator for sewer plant.	No	Further review required	24 months	Village Board	\$250,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Energy (Power/Fuel)
7	3.1	Extreme Cold, Ice Storm,	Public Awareness Program: The general public may not have a full understanding of	Prepare tips for avoiding impacts of extreme cold, ice storms and snow	No	N/A	12 months	Village Board, Ontario County Emergency	Staff Time	Reduce risk to citizens by educating the public on how to	Local Department Budget,	M	Communication

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

VILLAGE OF CLIFTON SPRINGS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
		Snow Storm	the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.				Management		prepare for hazards and disasters.	Staff time		
8	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of	Prepare tips for avoiding impacts of lightning to be disseminated via press	No	N/A	12 months	Village Board, Ontario County Emergency	Staff Time	Reduce risk to citizens by educating the public on how to	Local Department Budget,	M	Communication

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

VILLAGE OF CLIFTON SPRINGS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.				Management		prepare for hazards and disasters.	Staff time		
10	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
11	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage,	No	N/A	36 months	Village Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication



# ANNEX G: VILLAGE OF CLIFTON SPRINGS

VILLAGE OF CLIFTON SPRINGS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			the area and provide information on mitigation measures residents can employ to reduce damages to their property.	which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).									
12	3.1	Infestation	Invasive Species and Infestation: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Village Board, and Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
13	3.3	Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county, and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Village Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
14	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and	Work with local fire departments and volunteer fire	No	N/A	36-60 months	Village Board, in conjunction	Staff Time	Reduce risk to citizens by educating the public on how to	Local Budget	L	Communication

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

VILLAGE OF CLIFTON SPRINGS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			hazardous material releases as it related to the County.	departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarm1s/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc. Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	with Local Fire Departments		prepare for hazards and disasters.			
15	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Village Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local water districts on educating the public of what they can do to prevent water	No	N/A	36-60 months	Village Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
17	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been		No	N/A	36-60 months	Village Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to	Local Budget	L	Communication

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

VILLAGE OF CLIFTON SPRINGS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			experienced throughout the County.	contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.						prepare for hazards and disasters.			

# ANNEX G: VILLAGE OF CLIFTON SPRINGS

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Village of Clifton Springs
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	
Construction Site Stormwater Runoff Control	
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

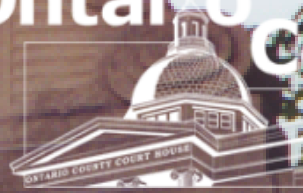
COMMUNITY CAPABILITY CHECKLIST	Village of Clifton Springs
Fire Codes	
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	
Regulation for Unsafe/Defective Structures	
Sediment and Erosion Control Measures	
Site Plan Review Requirements	
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	
Zoning Ordinance/Land Use Restrictions	
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX G: VILLAGE OF CLIFTON SPRINGS

COMMUNITY CAPABILITY CHECKLIST	Village of Clifton Springs
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	

ELTON  
PARK

Ontario  
County



NEW YORK

IN MEMORIAM

CHARLOTTE AUGUSTA STEELE ELTON  
LOVED, REMEMBERED AND HONORED  
— A. D. 1840 — 1893 —

ANNEX H  
TOWN OF EAST  
BLOOMFIELD



# ANNEX H: TOWN OF EAST BLOOMFIELD

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# ANNEX H: TOWN OF EAST BLOOMFIELD

## JURISDICTION PROFILE

### OVERVIEW

The Town of East Bloomfield is in Ontario County, New York, with a population of more than 3,600. The Town of East Bloomfield is bordered by West Bloomfield to the west, Victor to the north, Canandaigua to the east, and Bristol to the south. According to the United States Census Bureau, the town has a total area of 33.3 square miles, of which 33.2 square miles is land and 0.1 square miles is water. Conjoined U.S. Route 20–New York State Route 5, passes across the northern part of the town, running concurrently with New York State Route 64 between Bloomfield and South Bloomfield. Figure H-1 shows the general location of the Town of East Bloomfield.

## TOWN OF EAST BLOOMFIELD CONTACT INFORMATION

Name: Frederick (Fred) Wille

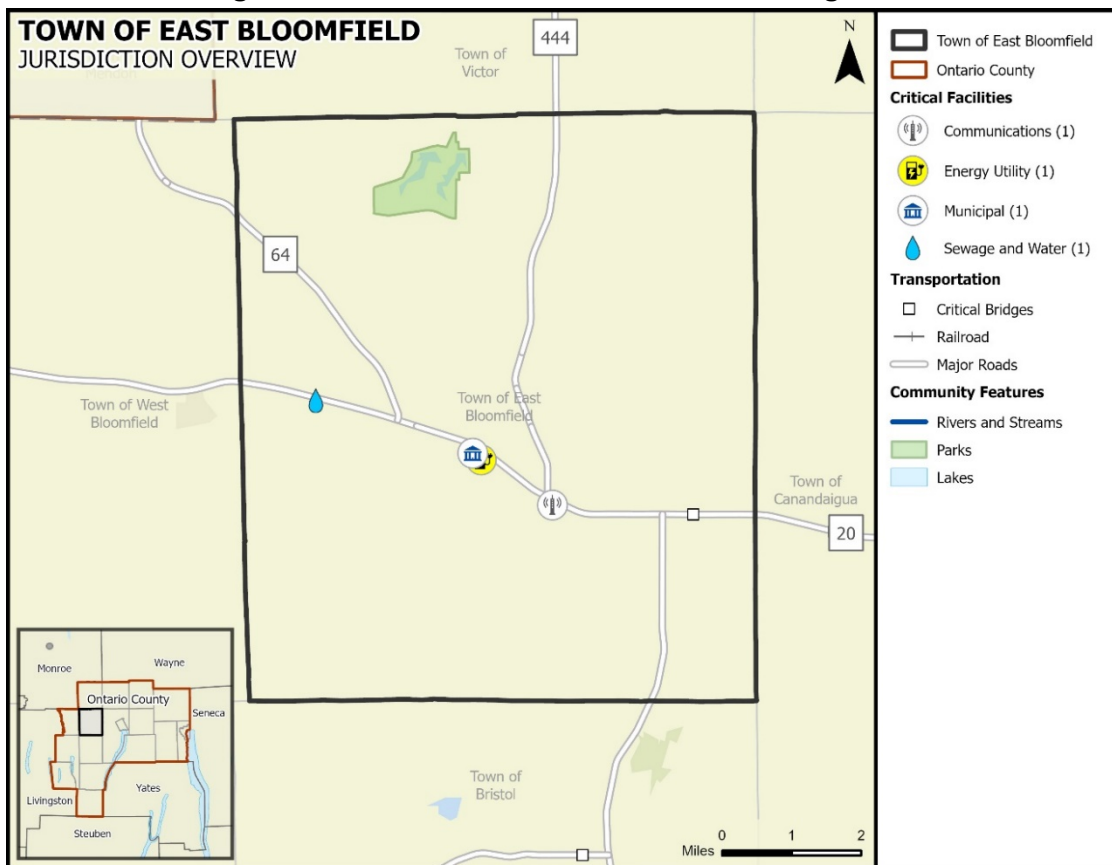
Title: Town Supervisor

Phone: (585) 657-7276

Address: P.O. Box 85 East Bloomfield, NY 14443

Email: [supervisorwille@townofeastbloomfield.org](mailto:supervisorwille@townofeastbloomfield.org)

Figure H-1. Town of East Bloomfield Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

## ANNEX H: TOWN OF EAST BLOOMFIELD

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of East Bloomfield has an official population of 3,640 residents, a 19.8 percent increase since the 2010 census. Table H-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of East Bloomfield using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table H-1. Population Distribution for the Town of East Bloomfield**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of East Bloomfield	3,634	3,655	0.58%	178	804	223

### POPULATION GROWTH

The official 2020 Town of East Bloomfield population is 3,640. Overall, the Town of East Bloomfield experienced an increase in population between 1990 and 2020 of 11.7 percent, or an increase by 382 residents. Between 2010 and 2020, the Town of East Bloomfield experienced a population growth. Table H-2 provides historic change rates in the Town of East Bloomfield.

**Table H-2. Population Growth for the Town of East Bloomfield, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of East Bloomfield	3,258	3,361	3,634	3,640	382	11.7%	6	0.2%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of East Bloomfield might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX H: TOWN OF EAST BLOOMFIELD

management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table H-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

**Table H-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table H-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table H-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of East Bloomfield	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of East Bloomfield’s website. A total of 0 surveys were completed for the Town of East

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX H: TOWN OF EAST BLOOMFIELD

Bloomfield. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of East Bloomfield's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

# ANNEX H: TOWN OF EAST BLOOMFIELD

## HAZARD PROFILES

### DAM FAILURE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the dam failure hazard for each participating jurisdiction impacted by dam failure (Section 5). The National Dam Safety Review Board (in coordination with FEMA) and the National Inventory of Dams (NID) list a total of 10 dams in the entire Ontario County planning area, including all jurisdictions. Each of these dams were analyzed individually by location, volume, elevation, and condition (where available) when determining the risk, if any, for each dam. Each dam site was further analyzed for potential risks utilizing FEMA's National Flood Hazard Layer to map locations and fully understand development near the dam and topographical variations that may increase risk. Based on the detailed analysis, the planning team was able to determine that only 2 of the 10 dams identified pose a risk to the Town of East Bloomfield.

**Table H-5. Town of East Bloomfield Dam Survey<sup>8</sup>**

LOCATIONS AT RISK	DAM NAME	HEIGHT (Ft.)	MAX STORAGE (Acre Ft.)	CONDITION	HAZARD CLASSIFICATION
Town of East Bloomfield	Fairport Reservoir Dam #1 (West Lake Dam)	45	322	Not Rated	Significant
	Fairport Reservoir Dam #2 (East Lake Dam)	20	228	Not Rated	Significant

#### **Fairport Reservoir Dam #1 (West Lake Dam):**

Fairport Reservoir Dam #1 also known as West Lake Dam is an earthen dam located in Boughton Park. The Park is located in the Town of East Bloomfield and jointly owned by the Towns of Victor, East Bloomfield, and West Bloomfield. It was constructed in 1932 to create a water supply reservoir for the Village of Fairport in Monroe County. The maximum storage capacity is 228 acre-feet. In the event of a breach, a dam failure could cause limited infrastructure damage, minor power outages and could disrupt utility systems. The area within a 1-mile radius of the dam is rural with some residential development. A breach may impact local roads and approximately 10-12 residential structures. In the event of a breach, it is estimated that the average breach width would be 104.2 feet with a maximum breach flow of 66,045 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of 5-10 feet, with the highest depth in the immediate area of the dam.

#### **Fairport Reservoir Dam #2 (East Lake Dam):**

Fairport Reservoir Dam #1 also known as East Lake Dam is an earthen dam located in Boughton Park. The Park is located in the Town of East Bloomfield and jointly owned by the Towns of Victor, East Bloomfield, and West Bloomfield. It was constructed in 1923 to create a water supply reservoir for the Village of Fairport in Monroe County. Maximum storage capacity is 322 acre-feet. In the event of a breach, a dam failure could cause limited infrastructure damage, minor power outages and could disrupt utility systems. The area within a 1-mile radius of the dam is rural with

<sup>8</sup> National Inventory of Dams

## ANNEX H: TOWN OF EAST BLOOMFIELD

some residential development, approximately 10-15 residential structures. In the event of a breach, it is estimated that the average breach width would be 78.1 feet with a maximum breach flow of 12,180 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of up to 15-25 feet, with the highest depth in the immediate area of the dam.

Dam failure presents a low threat for the Town of East Bloomfield due the limited capacity of both dams. Loss of life is not anticipated. While some residential structures could be impacted, the greatest threat in the event of a breach would be localized flooding. Some infrastructure and utilities could be minimally impacted. Economic loss would be minimal.

There are no reported dam failure events or other dam incidents recorded during the reporting period. While the Town of East Bloomfield is profiling dam failure, there are no known incidents, events, or damages as a result of dam failure in the planning area.

### *PROBABILITY OF FUTURE EVENTS*

Based on historical occurrences of dam failures, the probability for future events is considered “Unlikely” for the Town of East Bloomfield, meaning an event is possible in the next ten years.

### *VULNERABILITY AND IMPACT*

The Town of East Bloomfield planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts. None of the identified critical facilities in the Town of East Bloomfield were located within the estimated dam inundation zone. Impacts to critical facilities located in estimated inundation zones are listed in Section 5.

Flooding is the most prominent effect of dam failure. If the dam failure is extensive, a large amount of water would enter the downstream waterways forcing them out of their banks. There may be significant environmental effects, resulting in flooding that could disperse debris and hazardous materials downstream that can damage local ecosystems. If the event is severe, debris carried downstream can block traffic flow, cause power outages, and disrupt local utilities.

Annualized loss-estimates for dam failure are not available; neither is there a breakdown of potential dollar losses for critical facilities, infrastructure and lifelines, or hazardous-materials facilities. Historically, the overall severity of impact from a dam failure for the Town of East Bloomfield would be considered “Limited,” meaning it could result in injuries that can be treated with first-aid, critical facilities being shut down for 24-hours or less and less than 10 percent of the property in the estimated breach inundation area destroyed or with major damage.



# ANNEX H: TOWN OF EAST BLOOMFIELD

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of East Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of East Bloomfield can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of East Bloomfield, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of East Bloomfield planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of East Bloomfield:

**Table H-6. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

The population over 65 in the Town of East Bloomfield is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 982 potentially vulnerable residents in the Town of East Bloomfield based on age. In addition, an estimated 6 percent of the Town of East Bloomfield’s population live below the poverty level (Table H-7).

**Table H-7. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	804	178	223

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX H: TOWN OF EAST BLOOMFIELD

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of East Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of East Bloomfield can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of East Bloomfield, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of East Bloomfield planning team members identified the following critical facilities (Table H-8) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Town of East Bloomfield:

**Table H-8. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

The population over 65 in the Town of East Bloomfield is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 982 potentially vulnerable residents in the Town of East Bloomfield based on age. In addition, an estimated 6 percent of the Town of East Bloomfield’s population live below the poverty level (Table H-9).

**Table H-9. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	804	178	223

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX H: TOWN OF EAST BLOOMFIELD

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of East Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of East Bloomfield can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of East Bloomfield, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of East Bloomfield planning team members identified the following critical facilities (Table H-10) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of East Bloomfield:

**Table H-10. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

The population over 65 in the Town of East Bloomfield is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 982 potentially vulnerable residents in the Town of East Bloomfield based on age. In addition, an estimated 6 percent of the Town of East Bloomfield’s population live below the poverty level (Table H-11).

**Table H-11. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	804	178	223

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

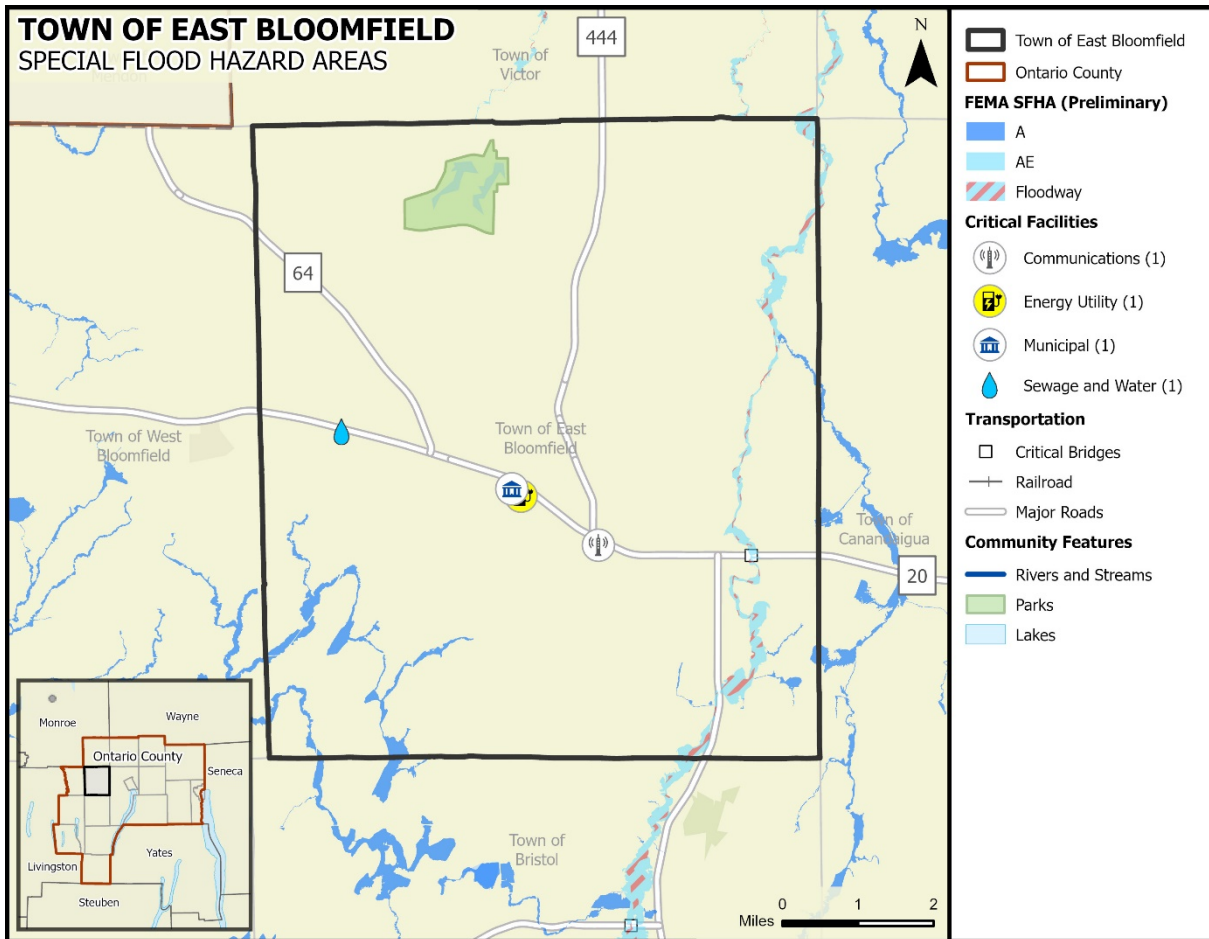
# ANNEX H: TOWN OF EAST BLOOMFIELD

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of East Bloomfield, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of East Bloomfield, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure H-2.

**Figure H-2. Estimated Flood Zones in the Town of East Bloomfield<sup>9</sup>**



### HISTORICAL OCCURRENCES

From January 1996 through to August 2023, no flood events were known to have impacted the Town of East Bloomfield, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

### PROBABILITY OF FUTURE EVENTS

While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According

<sup>9</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX H: TOWN OF EAST BLOOMFIELD

to historical records for the Ontario County planning area, the Town of East Bloomfield can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of East Bloomfield planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. There are no critical facilities located in the floodplain in the Town of East Bloomfield. Historic loss estimates due to flood are presented in Table H-12 below.

**Table H-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of East Bloomfield	0	\$0	\$0

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Town of East Bloomfield’s population live below the poverty level (Table H-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table H-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	223

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table H-14 depicts the level of impact for the Town of East Bloomfield.

**Table H-14. Town of East Bloomfield Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of East Bloomfield	Limited	The Town of East Bloomfield could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of East Bloomfield currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

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<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX H: TOWN OF EAST BLOOMFIELD

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of East Bloomfield has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of East Bloomfield as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of East Bloomfield Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table H-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table H-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of East Bloomfield	N/A	8/14/1995	Good Standing	2

### *REPETITIVE LOSS*

Table H-16 shows repetitive loss and severe repetitive loss properties for the Town of East Bloomfield.

**Table H-16. Repetitive Loss and Severe Repetitive Loss Properties**

JURISDICTION	BUILDING TYPE	NUMBER OF LOSSES
Town of East Bloomfield	2-4 Family	2
	Assumed Condo	0
	Non-Residential	0
	Other Residential	0
	Single Family*	0



## ANNEX H: TOWN OF EAST BLOOMFIELD

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence across the planning area demonstrates that the Town of East Bloomfield is vulnerable to hail events overall. However, no historical hail events have been reported in the Town of East Bloomfield between January 1956 through August 2023. Hail events that were reported to NCEI and NOAA databases may not represent all hail events to have occurred during the past 67.5 years.

#### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of East Bloomfield can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of East Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table H-17. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 38 manufactured homes are located in the Town of East Bloomfield (2 percent of total housing stock). In addition, 73 percent (approximately 1,191 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table H-18. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of East Bloomfield	1,191	38

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term



## ANNEX H: TOWN OF EAST BLOOMFIELD

stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Town of East Bloomfield’s population live below the poverty level (Table H-19).

**Table H-19. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	223

Overall, the total loss estimate of property and crops in the Town of East Bloomfield is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Town of East Bloomfield can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table H-20. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of East Bloomfield	\$0	\$0

## ANNEX H: TOWN OF EAST BLOOMFIELD

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of East Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of East Bloomfield can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of East Bloomfield, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of East Bloomfield planning team members identified the following critical facilities (Table H-21) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of East Bloomfield:

**Table H-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

The population over 65 in the Town of East Bloomfield is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 982 potentially vulnerable residents in the Town of East Bloomfield based on age. In addition, an estimated 6 percent of the Town of East Bloomfield’s population live below the poverty level (Table H-22).

**Table H-22. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	804	178	223

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX H: TOWN OF EAST BLOOMFIELD

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of East Bloomfield is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. No landslide incidents have been reported in the Town of East Bloomfield.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of East Bloomfield over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of East Bloomfield.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX H: TOWN OF EAST BLOOMFIELD

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There have been no recorded lightning events in the Town of East Bloomfield from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of East Bloomfield is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Town of East Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table H-23. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Town of East Bloomfield's population live below the poverty level (Table H-24).

**Table H-24. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	223

With no historical lightning events or losses, the impacts of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for

# ANNEX H: TOWN OF EAST BLOOMFIELD

24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of East Bloomfield due to lightning are considered negligible.

**Table H-25. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of East Bloomfield	\$0	\$0

# ANNEX H: TOWN OF EAST BLOOMFIELD

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of East Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of East Bloomfield can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of East Bloomfield, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of East Bloomfield planning team members identified the following critical facilities (Table H-26) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of East Bloomfield:

**Table H-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

The population over 65 in the Town of East Bloomfield is estimated at 22 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 982 potentially vulnerable residents in the Town of East Bloomfield based on age. In addition, an estimated 6 percent of the Town of East Bloomfield’s population live below the poverty level (Table H-27).

**Table H-27. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	804	178	223

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

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## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, from January 1994 through August 2023, no tornado events are known to have impacted the Town of East Bloomfield.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of East Bloomfield can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

### VULNERABILITY AND IMPACT

The Town of East Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table H-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 38 manufactured homes are located in the Town of East Bloomfield (2 percent of total housing stock). In addition, 73 percent (approximately 1,191 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table H-29. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of East Bloomfield	1,191	38

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Town of East Bloomfield’s population live below the poverty level (Table H-30).



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**Table H-30. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	223

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the Town of East Bloomfield would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities, and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table H-31. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of East Bloomfield	\$0	\$0

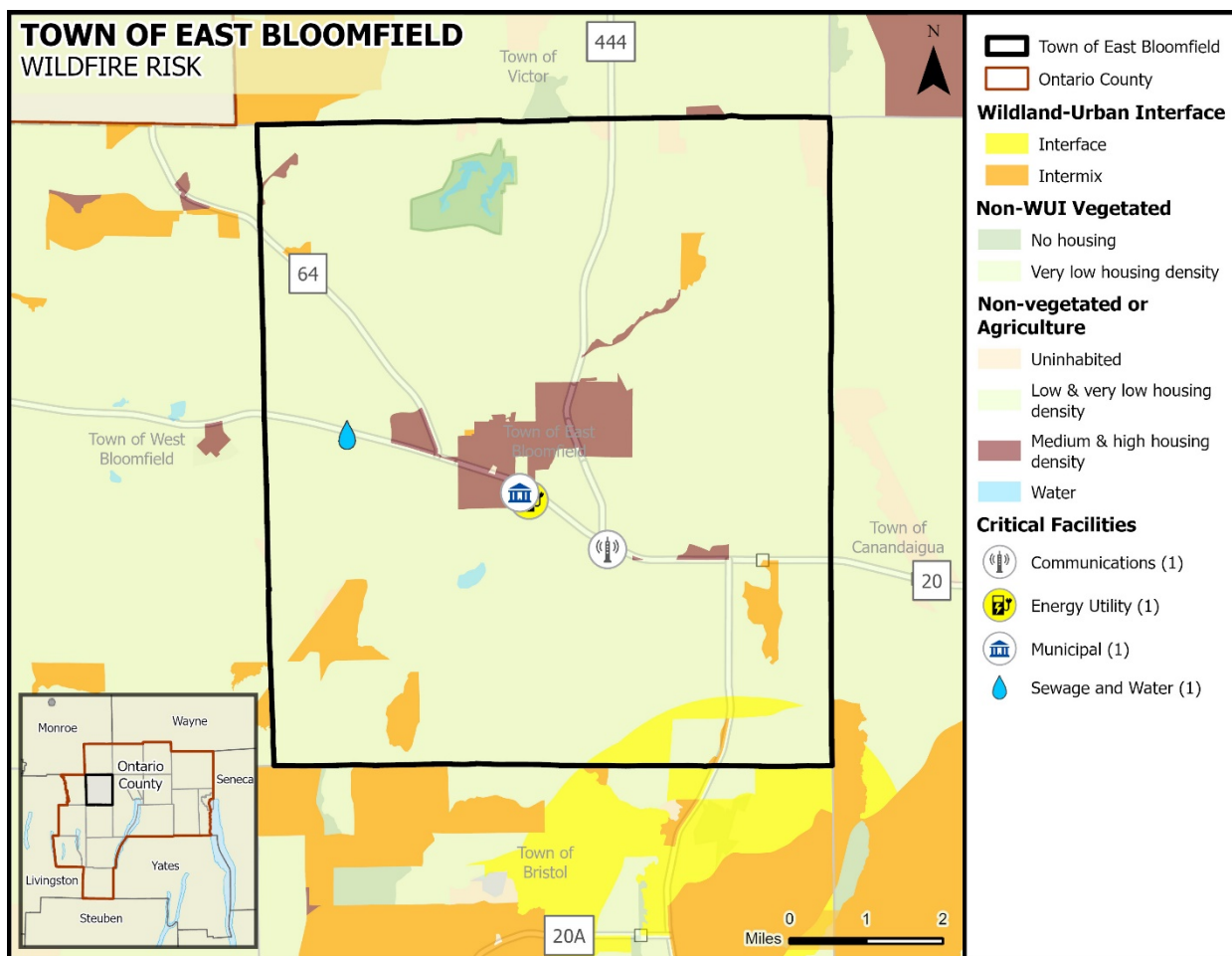
# ANNEX H: TOWN OF EAST BLOOMFIELD

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure H-3). The Town of East Bloomfield planning area is considered at low risk for wildfires with limited WUI areas.

Figure H-3. Town of East Bloomfield Wildland Urban Interface Map<sup>11</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the

<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX H: TOWN OF EAST BLOOMFIELD

Town of East Bloomfield, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

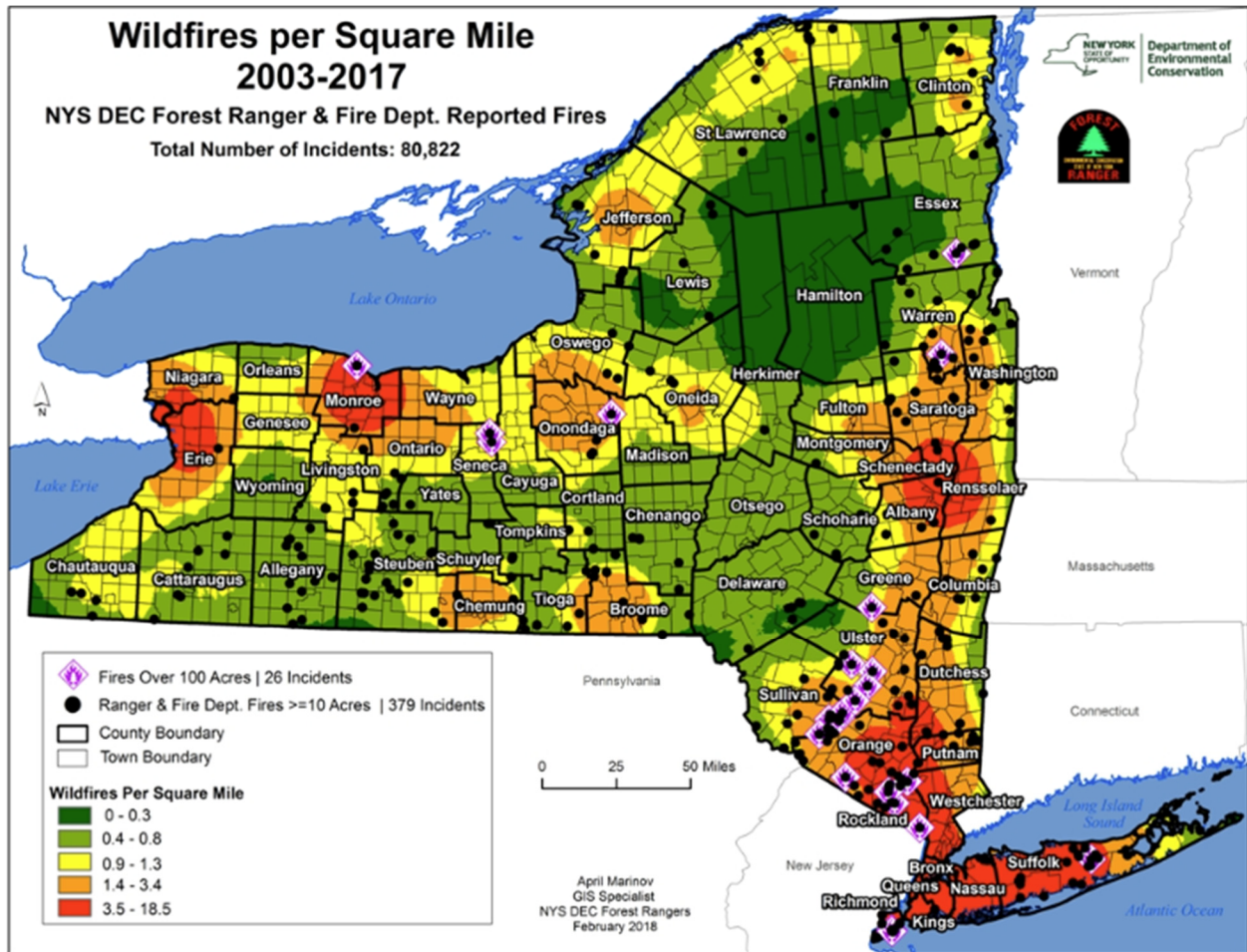
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure H-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX H: TOWN OF EAST BLOOMFIELD

Figure H-4. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of East Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities

## ANNEX H: TOWN OF EAST BLOOMFIELD

are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

**Table H-32. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

For the Town of East Bloomfield, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

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### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, nine wind events are known to have occurred in the Town of East Bloomfield. Table H-33 presents information on known historical events impacting the Town of East Bloomfield.

**Table H-33. Historical Wind Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of East Bloomfield	1/9/2008	56	0	0	\$21,047	\$0
	5/3/2012	50	0	0	\$19,331	\$0
	6/12/2015	50	0	0	\$12,411	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	9/21/2018	50	0	0	\$1,173	\$0
	9/21/2018	50	0	0	\$587	\$0
	9/21/2018	50	0	0	\$9,386	\$0
	6/21/2021	50	0	0	\$2,180	\$0
	6/16/2022	87	0	0	\$54,716	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>			<b>\$130,437</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of East Bloomfield, five of the reported events have occurred since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of East Bloomfield can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

#### VULNERABILITY AND IMPACT

The Town of East Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

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**Table H-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of East Bloomfield	1 Recreational Community Facility, 1 Communication Facility, 1 Energy Utility Facility, 1 Municipal Building, 1 Sewage and Water Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 38 manufactured homes are located in the Town of East Bloomfield (2 percent of total housing stock). In addition, 73 percent (approximately 1,191 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table H-35. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of East Bloomfield	1,191	38

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Town of East Bloomfield's population live below the poverty level (Table H-36).

**Table H-36. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of East Bloomfield	223

Impact of wind events experienced in the Town of East Bloomfield would be considered "Limited," with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$130,437 damages (in 2023 dollars) in the Town of East Bloomfield due to wind events. The estimated average annual loss from a wind event is \$1,932.

**Table H-37. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of East Bloomfield	\$130,437	\$1,932

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.



## ANNEX H: TOWN OF EAST BLOOMFIELD

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX H: TOWN OF EAST BLOOMFIELD

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TEB-1: Culvert Inspection/ Replacement</b>	
<b>Name of Jurisdiction:</b>	Town of East Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flooding is a concern, significant flooding in the past; town experiences issues such as washouts due to heavy rain and flooding - Mud Creek & Fish Creek clearing and sediment control could help in order to mitigate regular flooding; Fish Creek floods regularly; pipe under road at corner of Cherry and Brace is a problem for flooding, needs to be repaired or replaced. This project will provide resiliency for critical facilities from a 500yr flood event.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Culvert Inspection/ Replacement along areas of Mud Creek  Culvert Inspection/ Replacement along areas of Fish Creek.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TEB-1: Culvert Inspection/Clean Out & Replacement
<b>Name of Action or Project:</b>	TEB-1: Culvert Inspection/Clean Out & Replacement
<b>Action or Project Description:</b>	Culvert Inspection and/or replacement along flood prone creeks within the Town.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Mud Creek – Town has begun the necessary identification of areas of concern. Culverts are being replaced under Whalen and Oakmount Streets. Work is being performed by the Town Highway Department and is being funded through their existing budget. Estimated cost of the work being performed is approximately \$100,000.
<b>Estimated Cost:</b>	Fish Creek –Flooding associated with this creek is less of a priority to the Town. The Creek is classified as a trout stream which will necessitate correspondence with DEC and USACE prior to any work being done. Work along this Creek will also require buy in by property owners and adjacent municipality as much of the drainage issues lie outside of the Town’s right of way. The Town will begin reaching out to these stake holders to determine what, if any, work can be done.
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	Mud Creek – High / Fish Creek – Low
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	Mud Creek work funded through the tax Levy. No funding currently exists to complete work along Fish Creek.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Information not reflected in 2018 Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	Completed and Defer to Plan Update. Culvert at Mud Creek has been completed. Will need to address Fish Creek.
<b>Evaluation of Effectiveness:</b>	

## ANNEX H: TOWN OF EAST BLOOMFIELD

<b>Previous Action Worksheet</b>	
<b>TEB-2: Town-wide Flood Risk Study</b>	
<b>Name of Jurisdiction:</b>	Town of East Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Lack of correct and current information regarding flood risk makes it difficult to guide development in a manner that minimizes flood risk.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	<ol style="list-style-type: none"> <li>1) Identify areas susceptible to flooding due to storm water in the Town.</li> <li>2) Produce a plan to correct the storm water flooding within the Town that is putting undue risk on businesses and residents.</li> </ol>
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TEB-2: Town-wide Flood Risk Study
<b>Name of Action or Project:</b>	TEB-2: Town-wide Flood Risk Study
<b>Action or Project Description:</b>	Utilize the County's updated aerial elevation data (LIDAR) and a community engagement process to update maps and other information regarding flood risks throughout the Town.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Updated flood information will allow the Town to minimize risk of flood damage for new and existing development
<b>Estimated Cost:</b>	1) Identification of flood risks - \$50,000
<b>Other Factors Considered:</b>	2) Implementation plan - \$30,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	East Bloomfield Town Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2021
<b>Potential Fund Sources:</b>	DEC, FEMA, Local Budget Process
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. Town will need to explore if study was done at a county-wide level and look to implement recommended improvements based on study.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX H: TOWN OF EAST BLOOMFIELD

## NEW MITIGATION ACTIONS

TOWN OF EAST BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Dam Failure, Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Generator at Town Hall: During power outages, the Town Hall would act as an emergency operation center and if needed a shelter, and would be without lights, communications and maintenance equipment/machinery. The operations are basically brought to a halt. This project Helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Acquire and install a permanent generator at Town Hall	Yes	Further review required	24 months	Town Supervisor and Board	\$500,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Energy (Power/Fuel)
2	4.2	Flood	Town-wide Flood Risk Study: Lack of correct and current information regarding flood risk makes it difficult to guide development in a manner that minimizes flood risk. This action protects the community and reduces risk of flooding.	Identify areas susceptible to flooding due to storm water in the Town and produce a plan to implement recommended improvements as identified from assessments and study.	Yes	Further review required	12-24 months	Town Board	\$80,000 to identify risk and implement plan	Reduce risk of damages or injuries through flood mitigation at high-risk structures; Reduce the need for emergency response in high-risk areas; Reduce repetitive flood losses/claims; Reduce community recovery efforts and costs.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Communication
3	5.4	Flood	Culvert Inspection/Replacement at	Culvert Inspection and/or replacement along flood	No	Further review	36-60 months	Town Board	\$125,000	Reduce risk of flood damages through	Local Department	L	Safety/Security

# ANNEX H: TOWN OF EAST BLOOMFIELD

TOWN OF EAST BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			Fish Creek: Inadequate drainage systems along cause flooding, damages to roadways, and create hazardous driving conditions for motorists. This action protects the community and reduces risk of flooding.	prone creeks within the Town. The Creek is classified as a trout stream which will necessitate correspondence with DEC and USACE prior to any work being done. Work along this Creek will also require buy in by property owners and adjacent municipality as many of the drainage issues lie outside of the Town's right of way. The Town will begin reaching out to these stake holders to determine what, if any, work can be done.		required				improved drainage capacity; Reduce risk of injuries to residents; Reduce burden on emergency services during and after a flood event.	Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds		
4	4.2	Dam Failure	Boughton Park (Fairport Reservoir) Dam Repair Phase Project: Since the dams were initially built, there has been settling of the dam now causing downstream flooding impacts and concerns that the structure is potentially compromised.	Dam repair/compliance of the east and west dams at Boughton Park in the Town of East Bloomfield but would affect the Town of Victor.	No	Further review required	12-60 months	Town Board, in conjunction with Town of East and West Bloomfield	\$4,258,705	Improve risk assessment; Reduce risk of damage or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget; Grant submitted to DHSES/FE MA	H	Safety/Security
5	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures	Prepare bi-lingual tips to have made available on jurisdictional website for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX H: TOWN OF EAST BLOOMFIELD

TOWN OF EAST BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			residents can employ to reduce damages to their property.	hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.									
6	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips to have made available on jurisdictional website for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education	Prepare bi-lingual tips to have made available on jurisdictional website for avoiding impacts of hail, tornado, and wind to be disseminated via press	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX H: TOWN OF EAST BLOOMFIELD

TOWN OF EAST BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.									
8	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips to have made available on jurisdictional website for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in	Prepare bi-lingual tips to have made available on jurisdictional website for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX H: TOWN OF EAST BLOOMFIELD

TOWN OF EAST BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			the area and provide information on mitigation measures residents can employ to reduce damages to their property.	hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.									
10	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
11	3.1	Infestation	Invasive Species and Infestation: Ontario County is at risk of being infested with	Secure funding for education and best management practices to	No	N/A	36 months	Town Board, and Ontario County Soil	Staff Time	Reduce risk to citizens by educating the public on how to	Local Department Budget,	L	Communication

# ANNEX H: TOWN OF EAST BLOOMFIELD

TOWN OF EAST BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			invasive species which could cause great economic hardship to the community and storm water management.	reduce damage from invasive species on county-wide own properties and private own properties.				and Water Conservation District and Cooperative Extension		prepare for hazards and disasters.	Staff time		
12	3.3	Dam Failure, Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
13	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX H: TOWN OF EAST BLOOMFIELD

TOWN OF EAST BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.									
15	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
17	3.3	Fire	Inspections for public facilities: Ensure that facilities are up to code to reduce the risk of structural fires.	Complete annual and bi-annual inspections are required on all public facilities to ensure fire and carbon monoxide are functional based on local code chapter 63.	No	N/A	Annual and Bi-Annual	Code Enforcement Officer	Staff Time	Reduce risk damages and loss of life.	Local Budget	M	Communication, Safety/Security
18	3.3	Fire	Code requirement for new development: Ensure there is a limited risk to new development for structural fires.	Adopt a code that requires new development to meet all state and local fire code regulations	No	N/A	12-24 months	Town Board, Code Enforcement Officer	Staff Time	Reduce risk damages and loss of life.	Local Budget	M	Communication, Safety/Security

# ANNEX H: TOWN OF EAST BLOOMFIELD

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of East Bloomfield
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	X
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX H: TOWN OF EAST BLOOMFIELD

COMMUNITY CAPABILITY CHECKLIST	Town of East Bloomfield
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX H: TOWN OF EAST BLOOMFIELD

COMMUNITY CAPABILITY CHECKLIST	Town of East Bloomfield
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	X
Public Education/ Awareness Programs	X
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	
Public Information Official	
Resource Development/ Grant Writer	





**ANNEX I  
TOWN OF  
FARMINGTON**



# ANNEX I: TOWN OF FARMINGTON

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# ANNEX I: TOWN OF FARMINGTON

## JURISDICTION PROFILE

### OVERVIEW

The Town of Farmington is in Ontario County, New York with a population of just over 14,000. The land is at an average of 600 feet above sea level, is compressed by the Wisconsin glaciation and slopes from an elevation of 700 feet at the southern boards with the Town of Canandaigua, to 500 feet at the northern boundary with the Town of Macedon in Wayne County. According to the United States Census Bureau, the town has a total area of 39.5 miles, all land. The NY State Thruway (Interstate 90) passes across the town; New York State Route 332 is a north-south highway and NY State Route 96 is an east-west highway. Figure I-1 shows the general location of the Town of Farmington.

## TOWN OF FARMINGTON CONTACT INFORMATION

Name: Peter Ingalsbe

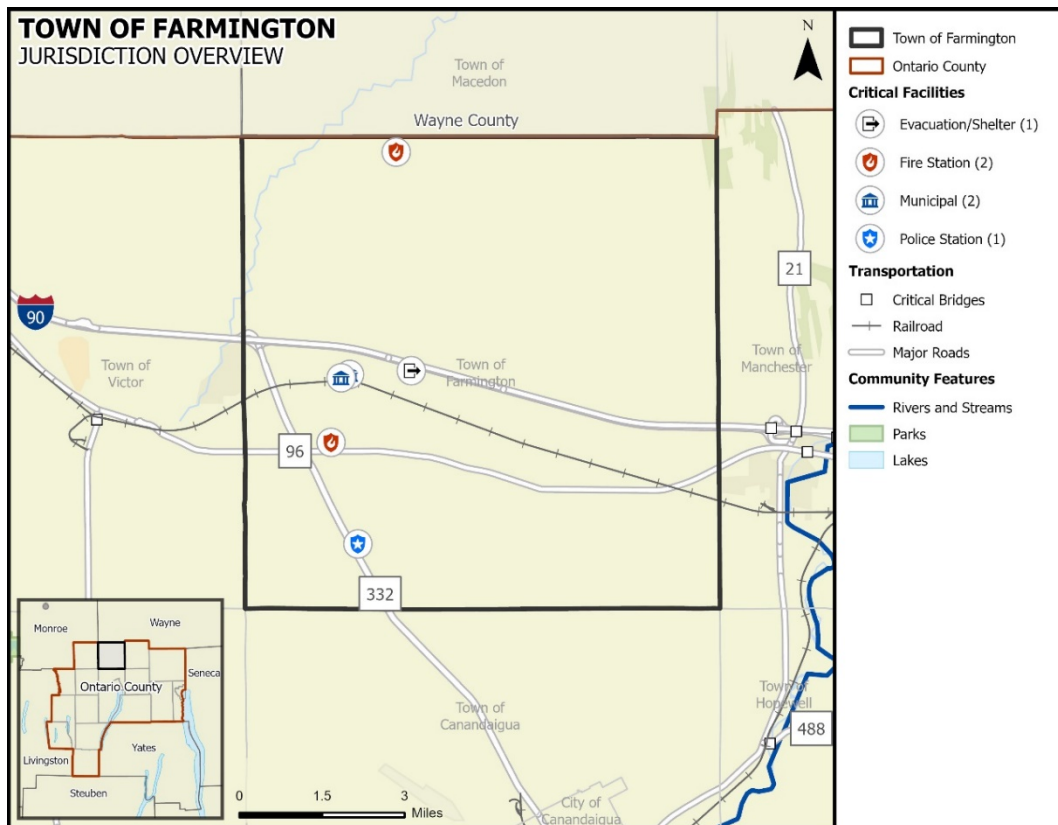
Title: Town Supervisor

Phone: (315) 986-8100

Address: 1000 County Road 8, Farmington, NY 14425

Email: pingalsbe@farmingtonny.org

Figure I-1. Town of Farmington Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

# ANNEX I: TOWN OF FARMINGTON

## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Farmington has an official population of 14,170 residents, a 19.8 percent increase since the 2010 census. Table I-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Farmington using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table I-1. Population Distribution for the Town of Farmington**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Farmington	11,825	14,108	19.3%	978	2,092	1,298

## POPULATION GROWTH

The official 2020 Town of Farmington population is 14,170. Overall, the Town of Farmington experienced an increase in population between 1990 and 2020 of 36.5 percent, or an increase by 3,789 residents. Between 2010 and 2020, the Town of Farmington experienced population growth. Table I-2 provides historic change rates in the Town of Farmington.

**Table I-2. Population Growth for the Town of Farmington, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Farmington	10,381	10,585	11,825	14,170	3,789	36.5%	2,345	19.8%

## FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Farmington might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX I: TOWN OF FARMINGTON

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table I-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

**Table I-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table I-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table I-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Farmington	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Farmington’s website. A total of 4 surveys were completed for the Town of Farmington.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX I: TOWN OF FARMINGTON

Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Farmington's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX I: TOWN OF FARMINGTON

### HAZARD PROFILES

#### DAM FAILURE

The Town of Farmington is not profiling dam failure. The Town of Farmington does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX I: TOWN OF FARMINGTON

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Farmington, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Farmington can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Farmington, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Farmington planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of Farmington:

**Table I-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

The population over 65 in the Town of Farmington is estimated at 15 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 3,070 potentially vulnerable residents in the Town of Farmington based on age. In addition, an estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-6).

**Table I-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Farmington	2,092	978	1,298

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.



# ANNEX I: TOWN OF FARMINGTON

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Farmington, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Farmington can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Farmington, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Farmington planning team members identified the following critical facilities (Table I-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Town of Farmington:

**Table I-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

The population over 65 in the Town of Farmington is estimated at 15 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 3,070 potentially vulnerable residents in the Town of Farmington based on age. In addition, an estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-8).

**Table I-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Farmington	2,092	978	1,298

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX I: TOWN OF FARMINGTON

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Farmington, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Farmington can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Farmington, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Farmington planning team members identified the following critical facilities (Table I-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of Farmington:

**Table I-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

The population over 65 in the Town of Farmington is estimated at 15 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 3,070 potentially vulnerable residents in the Town of Farmington based on age. In addition, an estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-10).

**Table I-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Farmington	2,092	978	1,298

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

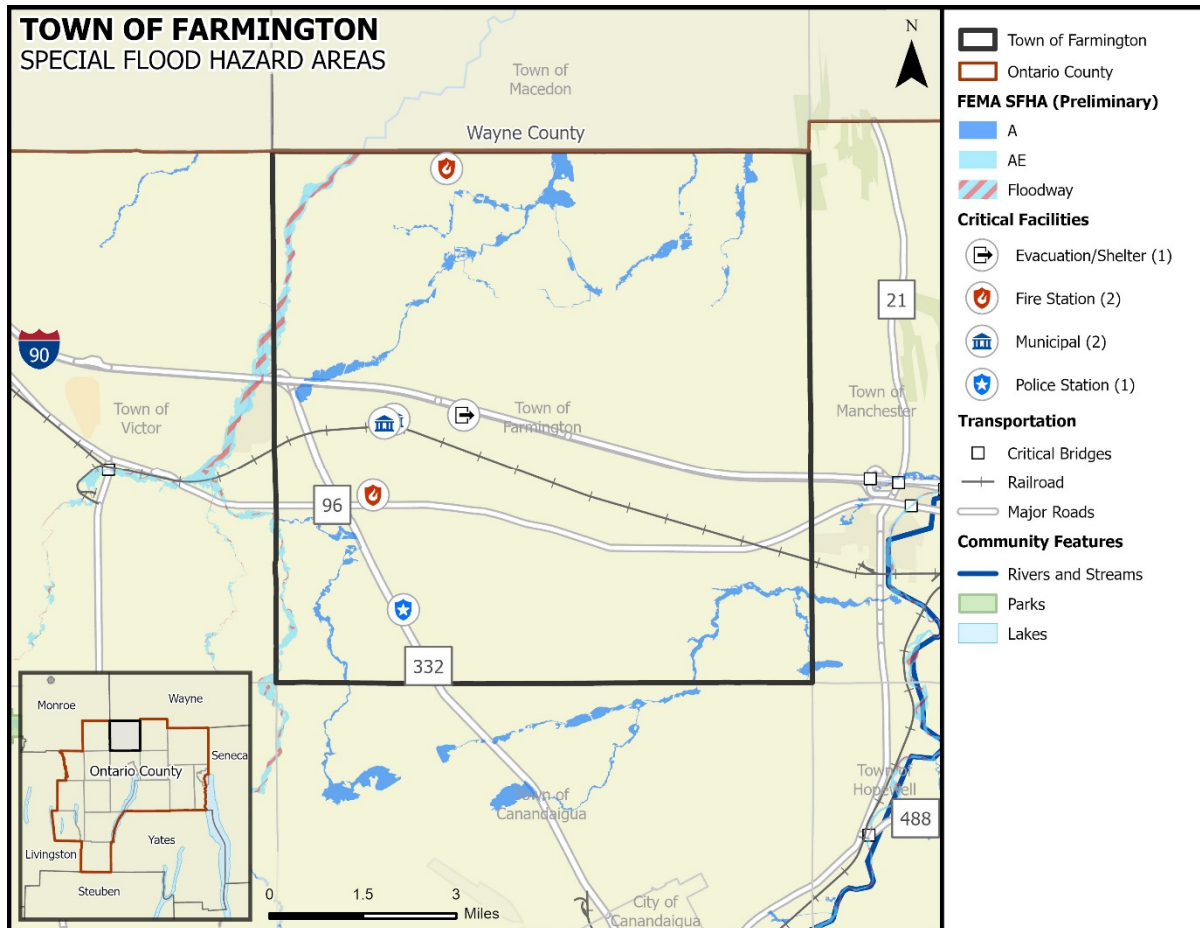
# ANNEX I: TOWN OF FARMINGTON

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Farmington, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Farmington, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure I-2.

Figure I-2. Estimated Flood Zones in the Town of Farmington<sup>8</sup>



### HISTORICAL OCCURRENCES

Table I-11 provides the historical occurrences of flood events for the Town of Farmington according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, 1 flood event was known to have impacted the Town of Farmington, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX I: TOWN OF FARMINGTON

**Table I-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Farmington	6/20/2019	0	0	\$23,125	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$23,125</b>	

Based on the list of historical flood events for the Town of Farmington, one reported event has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Farmington can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Farmington planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. There are no critical facilities located in the floodplain in the Town of Farmington. Historic loss estimates due to flood are presented in Table I-12 below.

**Table I-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Farmington	1	\$23,125	\$841

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table I-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Farmington	1,298

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table I-14 depicts the level of impact for the Town of Farmington.

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

# ANNEX I: TOWN OF FARMINGTON

**Table I-14 Town of Farmington Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Farmington	Limited	The Town of Farmington could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

## *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Farmington currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

## *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Farmington has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Farmington as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Farmington Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table I-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table I-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Farmington	5/6/2015	N/A	Good Standing	3

## *REPETITIVE LOSS*

The Town of Farmington currently has no repetitive loss or severe repetitive loss properties.

# ANNEX I: TOWN OF FARMINGTON

## HAIL

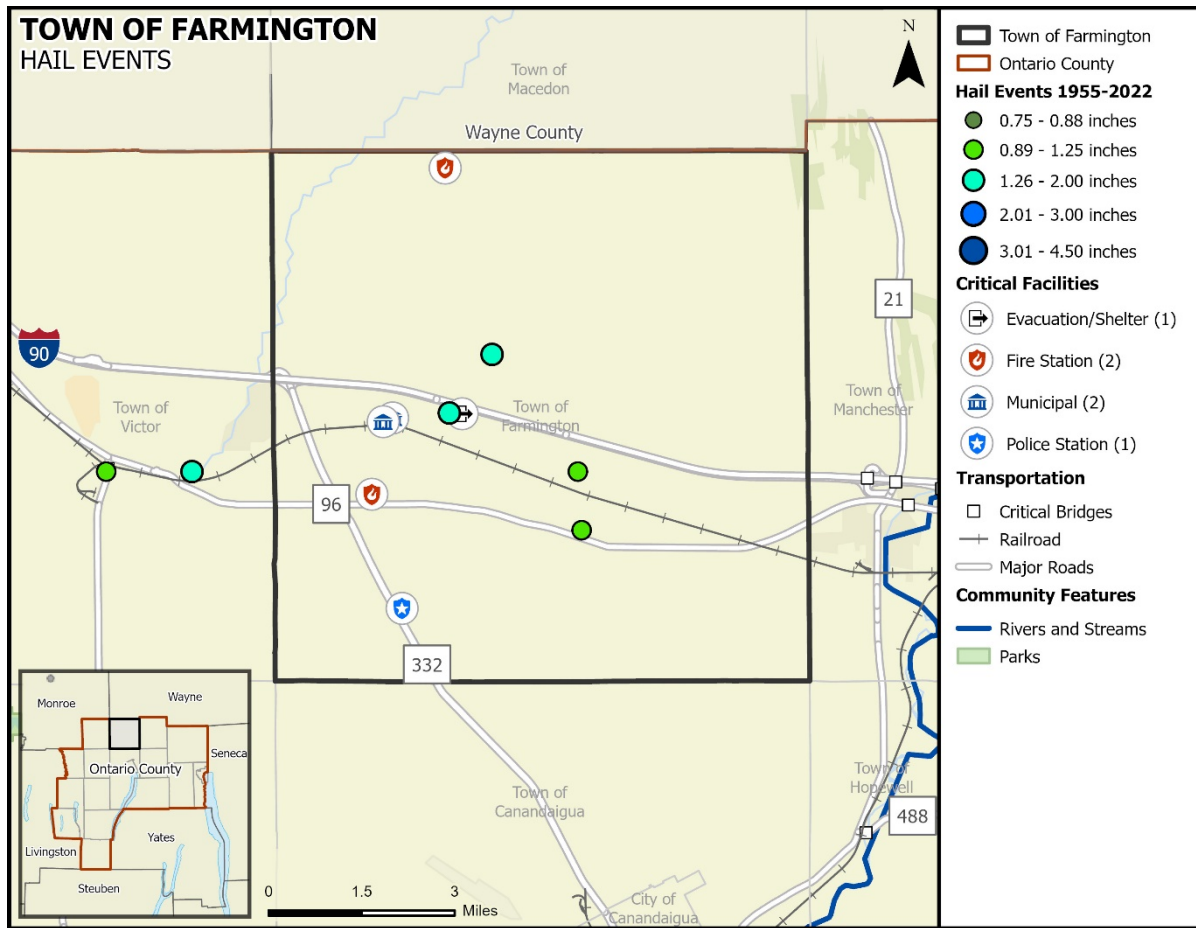
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure I-3 demonstrates that the Town of Farmington is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table I-16. A total of 4 reported historical hail events impacted the Town of Farmington between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of Farmington with latitude and longitude available were plotted (Figure I-3).

Figure I-3. Historical Hail Events, 1956-2023<sup>11</sup>



<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)



# ANNEX I: TOWN OF FARMINGTON

**Table I-16. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Farmington	7/23/2008	1.5	0	0	\$6,732	\$20,197
	6/16/2022	1.75	0	0	\$21,886	\$0
	6/16/2022	1.25	0	0	\$0	\$0
	6/16/2022	1.75	0	0	\$0	\$0
<b>TOTALS</b>		<b>(Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$28,618</b>	<b>\$20,197</b>

Based on the list of historical hail events for the Town of Farmington, three reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Farmington can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Farmington planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table I-17. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 334 manufactured homes are located in the Town of Farmington (6 percent of total housing stock). In addition, 45 percent (approximately 2,600 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table I-18. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Farmington	2,600	334

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.



## ANNEX I: TOWN OF FARMINGTON

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-19).

**Table I-19. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Farmington	1,298

Overall, the total loss estimate of property and crops in the Town of Farmington is \$48,818 with an average annualized loss of \$723. Based on historic loss and damages, the impact of hail damages on the Town of Farmington can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table I-20. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Farmington	\$48,818	\$723

# ANNEX I: TOWN OF FARMINGTON

## ICE STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the County, including the Town of Farmington, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Farmington can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Farmington, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Farmington planning team members identified the following critical facilities (Table I-21) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of Farmington:

**Table I-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

The population over 65 in the Town of Farmington is estimated at 15 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 3,070 potentially vulnerable residents in the Town of Farmington based on age. In addition, an estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-22).

**Table I-22. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Farmington	2,092	978	1,298

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX I: TOWN OF FARMINGTON

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides.

According to the New York State Hazard Mitigation Plan, the entire population in the Town of Farmington is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. No landslide incidents have been reported in the Town of Farmington.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Farmington over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Farmington.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslides and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX I: TOWN OF FARMINGTON

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Town of Farmington from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Farmington is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of Farmington planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table I-23. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-24).

**Table I-24. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Farmington	1,298

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Farmington due to lightning are considered negligible.

ANNEX I: TOWN OF FARMINGTON

Table I-25. Potential Annualized Losses

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Farmington	\$0	\$0

# ANNEX I: TOWN OF FARMINGTON

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Farmington, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Farmington can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Farmington, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Farmington planning team members identified the following critical facilities (Table I-26) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of Farmington:

**Table I-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

The population over 65 in the Town of Farmington is estimated at 15 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 3,070 potentially vulnerable residents in the Town of Farmington based on age. In addition, an estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-27).

**Table I-27. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Farmington	2,092	978	1,298

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX I: TOWN OF FARMINGTON

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Table I-28 provides the historical occurrences of tornado events for the Town of Farmington according to the National Centers for Environmental Information (NCEI) Storm Events database. From January 1994 through August 2023, one tornado event is known to have impacted the Town of Farmington, based upon NCEI records.

**Table I-28. Historical Tornado Events, 1994-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Farmington	6/10/2015	EF0	0	0	\$43,438	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$43,438</b>	<b>\$0</b>

Based on the list of historical tornado events for the Town of Farmington, there have been no recorded events since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Farmington can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Farmington planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table I-29. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 334 manufactured homes are located in the Town of Farmington (6 percent of total housing stock). In

<sup>13</sup> Historical events are reported from January 1994 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.



## ANNEX I: TOWN OF FARMINGTON

addition, 45 percent (approximately 2,600 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table I-30. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Farmington	2,600	334

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Farmington's population live below the poverty level (Table I-31).

**Table I-31. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Farmington	1,298

The total loss estimate due to tornado events is \$43,438 (in 2023 dollars), having an approximate annual loss estimate of \$1,498. Based on historic damages and best available data the impact of a tornado event on the Town of Farmington would be considered "Limited", with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table I-32. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Farmington	\$43,438	\$1,498

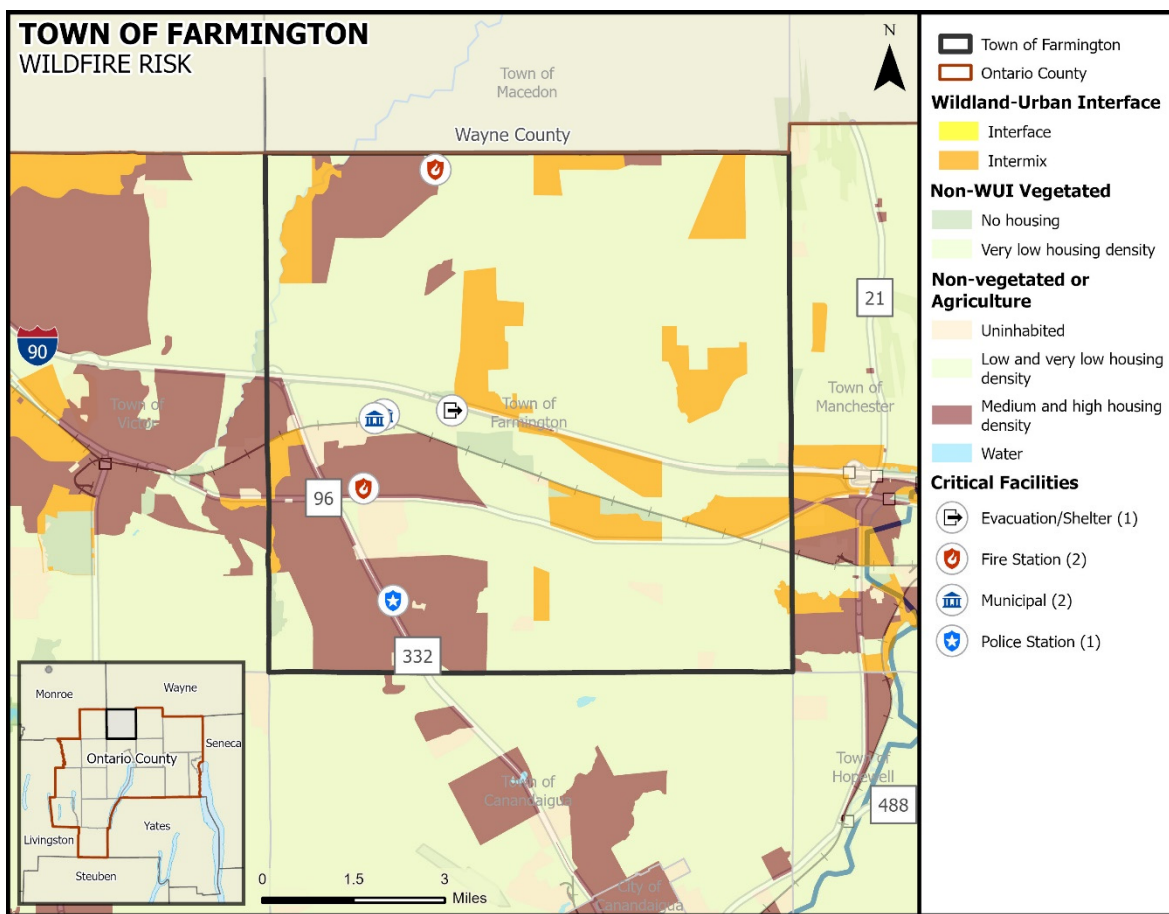
# ANNEX I: TOWN OF FARMINGTON

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure I-4). The Town of Farmington planning area is considered at low risk for wildfires with limited WUI areas.

Figure I-4. Town of Farmington Wildland Urban Interface Map<sup>14</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the

<sup>14</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX I: TOWN OF FARMINGTON

Town of Farmington, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

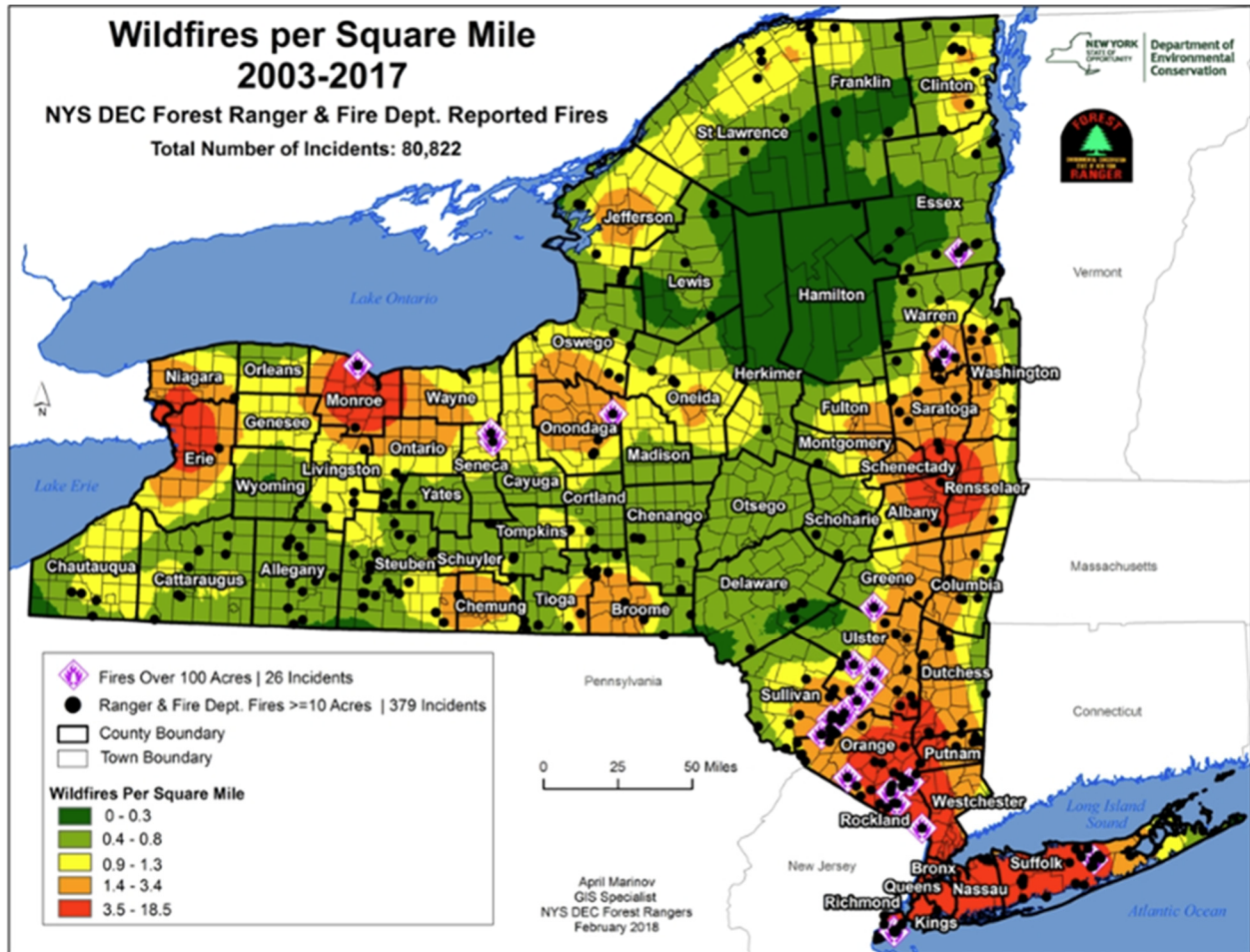
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure I-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX I: TOWN OF FARMINGTON

Figure I-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Farmington planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

ANNEX I: TOWN OF FARMINGTON

**Table I-33. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

For the Town of Farmington, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

# ANNEX I: TOWN OF FARMINGTON

## WIND

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Since 1956, 11 wind events are known to have occurred in the Town of Farmington. Table I-34 presents information on known historical events impacting the Town of Farmington.

**Table I-34. Historical Wind Events, 1956-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Farmington	8/24/1998	Unknown	0	0	\$27,188	\$0
	8/16/2010	50	0	0	\$13,566	\$0
	5/3/2012	50	0	0	\$19,331	\$0
	5/29/2012	50	0	0	\$12,887	\$12,887
	6/3/2014	50	0	0	\$18,639	\$0
	7/8/2014	55	0	0	\$62,156	\$0
	6/23/2015	50	0	0	\$12,411	\$0
	8/22/2017	50	0	0	\$12,063	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	8/8/2018	52	0	0	\$1,175	\$0
	8/16/2019	50	0	0	\$1,154	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$190,176</b>	<b>\$12,887</b>

Based on the list of historical wind events for the Town of Farmington, two of the reported events have occurred since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Farmington can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Farmington planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are

<sup>15</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.



## ANNEX I: TOWN OF FARMINGTON

similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table I-35. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Farmington	1 Evacuation Shelter, 2 Fire Stations, 2 Municipal Buildings, 1 Police Station

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 334 manufactured homes are located in the Town of Farmington (6 percent of total housing stock). In addition, 45 percent (approximately 2,600 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table I-36. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Farmington	2,600	334

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Farmington’s population live below the poverty level (Table I-37).

**Table I-37 Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Farmington	1,298

Impact of wind events experienced in the Town of Farmington would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5 year reporting period there has been a total of \$203,063 damages (in 2023 dollars) in the Town of Farmington due to wind events. The estimated average annual loss from a wind event is \$3,008.

**Table I-38. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Farmington	\$203,063	\$3,008

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.



## ANNEX I: TOWN OF FARMINGTON

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX I: TOWN OF FARMINGTON

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TF-1: Drainage Management – Regional Study</b>	
<b>Name of Jurisdiction:</b>	Town of Farmington
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Drainage is a concern - Examine extending the drainage district to town-wide. (Easements obtained as part of the Town's MS 4 Program Administration) (Town has amended its Stormwater Management chapter of local law). Continue periodic maintenance of stream corridors. Identify and upgrade/replace targeted culverts - example: culvert underneath Mertensia Road is currently being replaced. Severe storms have caused issues- downed trees from a storm blocked the flow of Mud Creek which cause flooding.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Encourage Ontario County to conduct regional drainage studies of water sheds to realize a comprehensive solution to drainage concerns.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TF-1: Drainage management – regional study
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Ganargua, Beaver and Black Brook Creeks Inter-Municipal Drainage Report. Towns of Canandaigua, East Bloomfield, Farmington, Manchester, and Victor.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Conducting inter-municipal study of these water sheds is the only truly comprehensive approach to correcting drainage concerns. Estimated cost of such a document would approach \$150,000.00 including details mapping, surveying, and committee coordination.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Planning
<b>Action/Project Priority:</b>	Priority Number 1 of 2
<b>Timeline for Completion:</b>	2021
<b>Potential Fund Sources:</b>	FEMA grant award, EPA grant award and partial cost sharing by all municipalities involved.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Lead Municipality coordinates meeting minutes, hosts meetings, and posts meeting minutes on website. County coordinates consultant's scope of service and deliverables.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. In August 2023 an application for grant funding assistance, under the State's Consolidated Funding Application (CFA) Program, was prepared by staff at the Ontario County Planning Department with assistance provided by the Ontario County Soil & Water Conservation District. The grant, if awarded, would provide funds to study a portion of the Black Creek – Black Brook Drainage Divides in the County. The current application would provide for a
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX I: TOWN OF FARMINGTON

	<p>study of the downstream portions of this extensive drainage divide in the County.</p> <p>Currently, the towns of Canandaigua, Manchester and Farmington have been identified as participants in this drainage study. The following municipalities have portions of this drainage divide included within their boundaries – town of South Bristol, Bristol, East Bloomfield and Victor, and the Village of Victor, located within Ontario County. In addition, the developing portion of the Town of Macedon, Wayne County, is located within the drainage divide area and should be studied.</p> <p>Funding for this current project, if approved, would come from the New York State Department of Environmental Conservation Nonpoint Source Planning Grant Program. If funded, the project would commence in February 2024 and end July 1, 2025. This is a \$93,000.00 project involving state CFA funds of \$75,000, with \$18,000.00 being matched with County and towns funds.</p>
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# ANNEX I: TOWN OF FARMINGTON

<b>Previous Action Worksheet</b>	
<b>TF-2: Town Court Facility Back-up Generator</b>	
<b>Name of Jurisdiction:</b>	Town of Farmington
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Town Court building on Hook Road could benefit from a natural gas generator to enable a place of public shelter during prolonged energy outages.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Purchase and installation of natural gas generator sized to meet the needs of the Town Court Facility during prolonged energy outages in the community. Action also benefits temporary power outages and ensures continuous security of the facility and site.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TF-2: Town Court Facility Back-up Generator
<b>Name of Action or Project:</b>	TF-2: Town Court Facility Back-up Generator
<b>Action or Project Description:</b>	Farmington Town Court, with the back-up power source, could become a facility to house persons during prolonged periods of power outages and/or major weather events.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Loss of power threatens the Court's security system, the public safety of Court operations and would provide safe haven during major weather events.
<b>Estimated Cost:</b>	\$30,000.00
<b>Other Factors Considered:</b>	Proximity of Court Facility to Interstate 90
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Farmington Town Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2019
<b>Potential Fund Sources:</b>	Homeland Security Funds, VLT Funds, CFA Funds, Local Taxes
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed. In 2018, the Town of Farmington installed a backup generator for the Town Court Building located at 1023 Hook Road. This project provides a long-term solution to previous power outages.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX I: TOWN OF FARMINGTON

## NEW MITIGATION ACTIONS

TOWN OF FARMINGTON PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Extreme Cold, Flood, Ice Storm, Snow Storm, Tornado, Wildfire, Wind	Upgrades to Farmington Volunteer Fire Department Station #2: During hazard events the Fire Station will serve as the Emergency Operations Center (EOC) and centralized shelter for residents and tourist in the area. Assessment of operational capacity and necessary improvements required. Farmington utilizes this site to provide shelter to residents and the traveling public during major weather events and power outages. Farmington was the 5th fastest growing community in upstate New York during the last Census period and continue to attract growth and development. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Enhance operational capacity to ensure appropriate accommodations for residents/evacuees and ensuring appropriate response during and after a disaster event. This can include but is not limited to expansion of communication needs for command operations, enhancing space for evacuee and those with special needs accessibility when being utilized as a community-wide shelter.	Yes	Further review required	12-36 months	Town Boarding, Farmington VFD, and Wendel Engineers	\$2,000,000	Reduce the risk of injury and fatalities to residents. The VFD serves approximately 13,000 residents in a 32 square mile area, an addition 2,000 employees within the town-limits, and an additional 3,500 people who visit the area daily for tourist attractions. Ensure continuity of critical services and emergency response.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Fuel)

# ANNEX I: TOWN OF FARMINGTON

TOWN OF FARMINGTON PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
2	3.2	Fire, HazMat	Assessment for Farmington Volunteer Fire Department Station #2: Farmington is located along I-90 and State Routes 96 & 332, the Gateway Corridors to the Finger Lakes Region of New York State. The Fire Department is the first responder to numerous vehicle crashes and hazardous material spills along these corridors. At this time, inadequate decontamination systems in place.	Assess current facility to ensure appropriate accommodations for first responders after an event. This can include but is not limited to decontamination and washing/laundry facility.	No	N/A	12-36 months	Town Board, Farmington VFD, and MRB Group, D.P.C	\$2,000,000	Ensure continuity of critical services and emergency response. Reduces risk to emergency response personnel.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Hazardous Material
3	4.2	Flood	Drainage Management for Portion of the Black Creek – Black Brook Drainage Divides: Examine extending the drainage district to town-wide. Continue to need maintenance of stream corridors and debris removal. This project protects the community and reduces the risk of flooding.	Complete study of the downstream portions of this extensive drainage divides in the County. Implement improvements to identified areas.	No	Further review required	February 2024 – July of 2025	Town Board in conjunction with Ontario County Planning Department, and Ontario County Soil & Water Conservation District.	\$95,000	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget, Staff time, Bonds, Tax Revenue; State Grants: New York State Department of Environmental Conservation Nonpoint Source Planning Grant Program	H	Safety/Security

# ANNEX I: TOWN OF FARMINGTON

TOWN OF FARMINGTON PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
4	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
5	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include advertising of VFD Station #2 and identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX I: TOWN OF FARMINGTON

TOWN OF FARMINGTON PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
6	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
8	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX I: TOWN OF FARMINGTON

TOWN OF FARMINGTON PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.									
9	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board, in conjunction with Ontario County Planning, Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX I: TOWN OF FARMINGTON

TOWN OF FARMINGTON PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Infestation	Public Awareness Program: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board and Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
11	3.3	Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
12	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX I: TOWN OF FARMINGTON

TOWN OF FARMINGTON PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
13	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns about a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notifications to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
15	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination have been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX I: TOWN OF FARMINGTON

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Farmington
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	X
Open Space Plan	
Stormwater Management Plan	X
Transportation Plan	X
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X

## ANNEX I: TOWN OF FARMINGTON

COMMUNITY CAPABILITY CHECKLIST	Town of Farmington
Critical Infrastructure Protection	
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	X
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	
Subdivision Regulations	
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	

## ANNEX I: TOWN OF FARMINGTON

COMMUNITY CAPABILITY CHECKLIST	Town of Farmington
Mutual Aid Agreement	X
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	X
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	X
Environmental Conservation Specialist	X
Floodplain Administrator	X
GIS Specialist	X
Personnel with Hazard Knowledge	X
Planners	X
Public Information Official	X
Resource Development/ Grant Writer	X





ANNEX J  
**CITY OF GENEVA**

ANNEX J: CITY OF GENEVA

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## ANNEX J: CITY OF GENEVA

### JURISDICTION PROFILE

#### OVERVIEW

The City of Geneva is in Ontario and Seneca Counties, New York, with a population of over 12,000. It is at the northern end of Seneca Lake and all land portions of the city are within Ontario County. According to the United States Census Bureau, the city has a total area of 5.8 square miles, 4.3 square miles of it is land and 1.6 square miles is water. The city is connected via the east-west US 20, concurrent with NY5 and NY 14 is a north-south highway through the city. It is approximately equal distance from Rochester and Syracuse, each being about 45 miles. Figure J-1 shows the general location of the City of Geneva.

### CITY OF GENEVA CONTACT INFORMATION

Name: Steve Valentino

Title: Mayor

Phone: (315) 521-4853

Address: 47 Castle Street, Geneva, NY  
14456

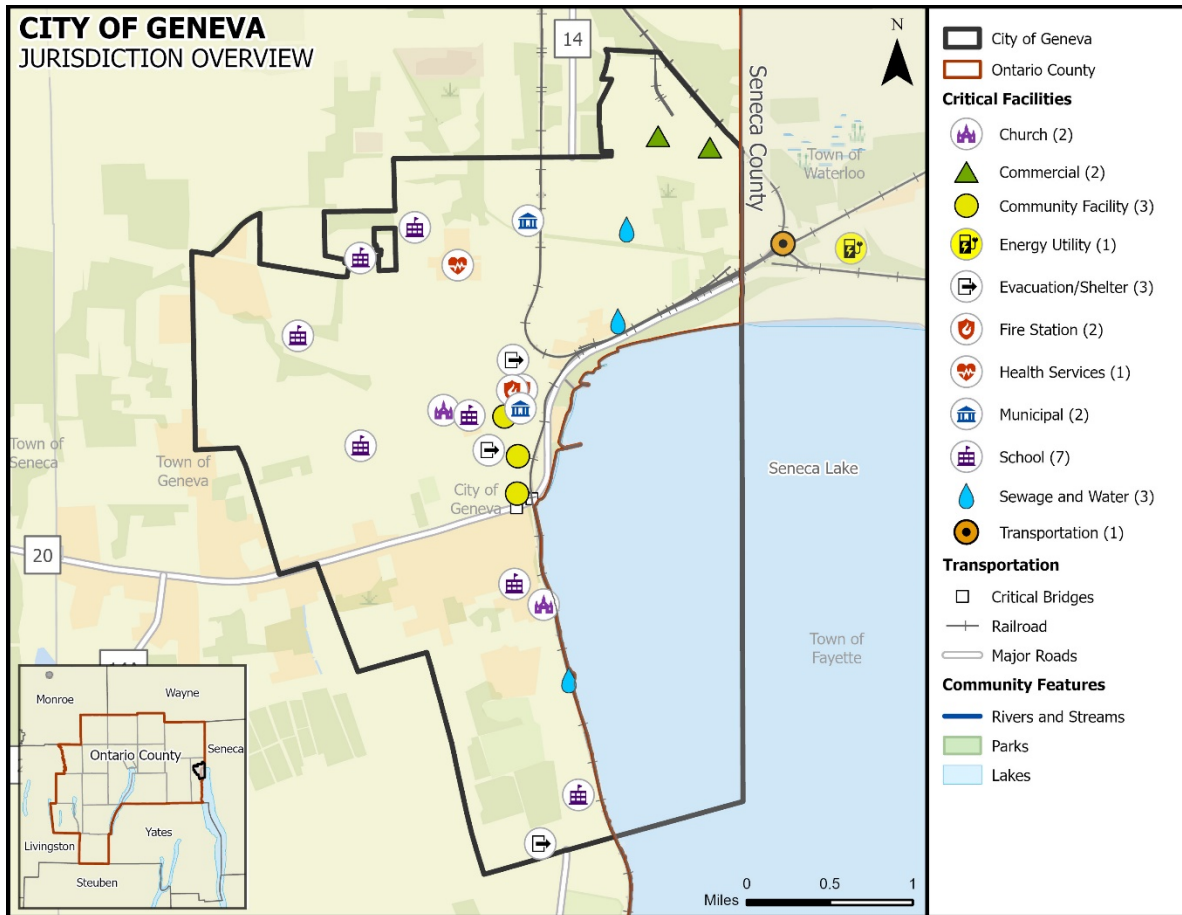
Email: [svalentino@geneva.ny.us](mailto:svalentino@geneva.ny.us)

#### NOTE TO THE REVIEWER

It is noted that the City of Geneva and the Town of Geneva are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

# ANNEX J: CITY OF GENEVA

Figure J-1. City of Geneva Planning Area<sup>1</sup>



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the City of Geneva has an official population of 12,812 residents, a 3.4 percent decrease since the 2010 census. Table J-1 summarizes select characteristics of vulnerable or sensitive populations in the City of Geneva using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

## ANNEX J: CITY OF GENEVA

**Table J-1. Population Distribution for the City of Geneva**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
City of Geneva	13,261	12,577	-5.2%	781	1,856	2,339

### POPULATION GROWTH

The official 2020 City of Geneva population is 12,812. Overall, the City of Geneva experienced a decrease in population between 1990 and 2020 of 9.4 percent, or a decrease of 1,331 residents. Between 2010 and 2020, the City of Geneva experienced a population decline. Table J-2 provides historic change rates in the City of Geneva.

**Table J-2. Population Growth for the City of Geneva, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
City of Geneva	14,143	13,617	13,261	12,812	-1,331	-9.4%	-449	-3.4%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the City of Geneva might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table J-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

# ANNEX J: CITY OF GENEVA

**Table J-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

## PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table J-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table J-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
City of Geneva	Mayor

## PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the City of Geneva’s website. A total of 26 surveys were completed for the City of Geneva. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX J: CITY OF GENEVA

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the City of Geneva's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.



## ANNEX J: CITY OF GENEVA

### HAZARD PROFILES

#### DAM FAILURE

The City of Geneva is not profiling dam failure. The City of Geneva does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

## ANNEX J: CITY OF GENEVA

### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the City of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Geneva can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Geneva, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The City of Geneva planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the City of Geneva:

**Table J-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

The population over 65 in the City of Geneva is estimated at 15 percent of the City’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 2,637 potentially vulnerable residents in the City of Geneva based on age. In addition, an estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-6).

**Table J-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Geneva	1,856	781	2,339

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX J: CITY OF GENEVA

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the City of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Geneva can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Geneva, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the City of Geneva planning team members identified the following critical facilities (Table J-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the City of Geneva:

**Table J-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

The population over 65 in the City of Geneva is estimated at 15 percent of the City’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 2,637 potentially vulnerable residents in the City of Geneva based on age. In addition, an estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-8).

**Table J-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Geneva	1,856	781	2,339

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX J: CITY OF GENEVA

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the City of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Geneva can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Geneva, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the City of Geneva planning team members identified the following critical facilities (Table J-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the City of Geneva:

**Table J-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

The population over 65 in the City of Geneva is estimated at 15 percent of the City’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 2,637 potentially vulnerable residents in the City of Geneva based on age. In addition, an estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-10).

**Table J-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Geneva	1,856	781	2,339

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

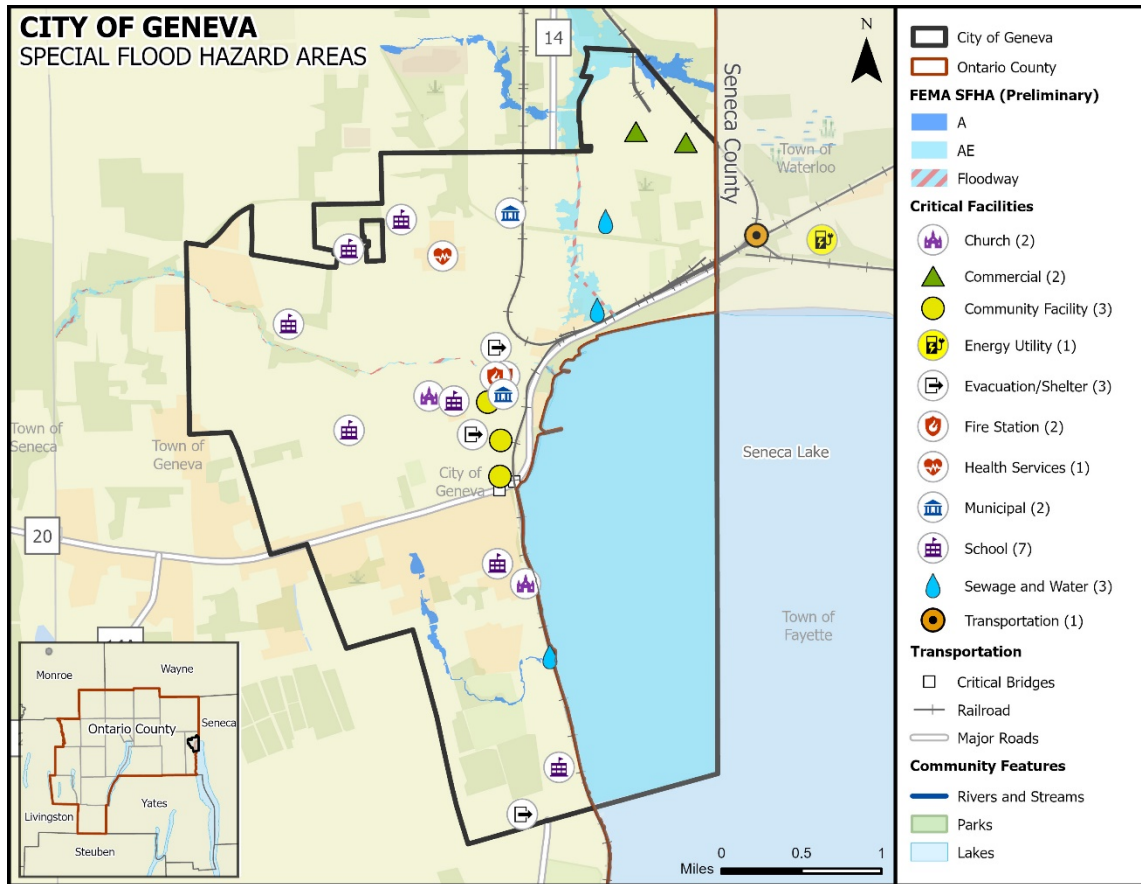
# ANNEX J: CITY OF GENEVA

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the City of Geneva, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the City of Geneva, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure J-2.

**Figure J-2. Estimated Flood Zones in the City of Geneva<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table J-11 provides the historical occurrences of flood events for the City of Geneva according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, seven flood events were known to have impacted the City of Geneva, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX J: CITY OF GENEVA

**Table J-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Geneva	7/31/2000	0	0	\$257,093	\$0
	5/18/2015	0	0	\$24,909	\$0
	7/13/2017	0	0	\$24,198	\$0
	8/18/2019	0	0	\$1,154	\$0
	8/18/2019	0	0	\$230,880	\$0
	10/26/2021	0	0	\$0	\$0
	7/1/2023	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$538,234</b>	

Based on the list of historical flood events for the City of Geneva, four of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the City of Geneva can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The City of Geneva planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table J-12 includes the critical facilities in the City of Geneva located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in the flood hazard profile (Section 9).

**Table J-12. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
City of Geneva	Gulvin Park Pump Station Structure	Sewage and Water	1%
	Sewage Treatment Plant (South Plant) Structure	Sewage and Water	1%

Historic loss estimates due to flood are presented in Table J-13 below.

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX J: CITY OF GENEVA

**Table J-13. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
City of Geneva	7	\$538,234	\$19,572

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table J-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Geneva	2,339

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table J-15 depicts the level of impact for the City of Geneva.

**Table J-15 City of Geneva Impact**

JURISDICTION	IMPACT	DESCRIPTION
City of Geneva	Limited	The City of Geneva could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The City of Geneva currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The City of Geneva has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the City of Geneva as a high-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The City of Geneva Building Inspector is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.



## ANNEX J: CITY OF GENEVA

- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table J-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table J-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
City of Geneva	1/7/2022	4/26/2011	Good Standing	50

### *REPETITIVE LOSS*

The City of Geneva currently has no repetitive loss or severe repetitive loss properties.



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**Table J-17. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Geneva	5/10/2000	1	0	0	\$17,269	\$0
	5/24/2000	0.75	0	0	\$86,347	\$0
	10/21/2001	0.75	0	0	\$3,333	\$0
	6/21/2007	0.75	0	0	\$0	\$0
	7/21/2010	1	0	0	\$0	\$0
	5/21/2013	1.75	0	0	\$6,357	\$12,714
	5/21/2013	1.75	0	0	\$19,071	\$0
	5/21/2013	1	0	0	\$6,357	\$0
	7/31/2014	0.88	0	0	\$0	\$24,862
	7/31/2014	1	0	0	\$12,431	\$37,293
<b>TOTALS</b>		<b>(Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$151,165</b>	<b>\$74,869</b>

Based on the list of historical hail events for the City of Geneva, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the City of Geneva can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The City of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table J-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 5 manufactured homes are located in the City of Geneva (0.1 percent of total housing stock). In addition, 92 percent (approximately 4,767 structures) of the housing units were built before 1980.

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX J: CITY OF GENEVA

These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table J-19. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
City of Geneva	4,767	5

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-20).

**Table J-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Geneva	2,339

Overall, the total loss estimate of property and crops in the City of Geneva is \$226,034 with an average annualized loss of \$3,373. Based on historic loss and damages, the impact of hail damages on the City of Geneva can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table J-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
City of Geneva	\$226,034	\$3,373

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### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the City of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Geneva can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Geneva, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the City of Geneva planning team members identified the following critical facilities (Table J-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the City of Geneva:

**Table J-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

The population over 65 in the City of Geneva is estimated at 15 percent of the City’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 2,637 potentially vulnerable residents in the City of Geneva based on age. In addition, an estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-23).

**Table J-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Geneva	1,856	781	2,339

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX J: CITY OF GENEVA

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the City of Geneva is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. No landslide incidents have been reported in the City of Geneva.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the City of Geneva over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the City of Geneva.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

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### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There have been no recorded lightning events in the City of Geneva from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the City of Geneva is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The City of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table J-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 19 percent of the City of Geneva's population live below the poverty level (Table J-25).

**Table J-25. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Geneva	2,339

With no historical lightning events or losses, the impacts of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the City of Geneva due to lightning are considered negligible.



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**Table J-26. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
City of Geneva	\$0	\$0

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### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the City of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the City of Geneva can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the City of Geneva, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the City of Geneva planning team members identified the following critical facilities (Table J-27) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the City of Geneva:

**Table J-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

The population over 65 in the City of Geneva is estimated at 15 percent of the City’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 2,637 potentially vulnerable residents in the City of Geneva based on age. In addition, an estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-28).

**Table J-28. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
City of Geneva	1,856	781	2,339

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

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### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Table J-29 provides the historical occurrences of tornado events for the City of Geneva according to the National Centers for Environmental Information (NCEI) Storm Events database. From January 1994 through August 2023, one tornado event is known to have impacted the City of Geneva, based upon NCEI records.

**Table J-29. Historical Tornado Events, 1994-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Geneva	8/21/1994	F1	0	0	\$993,862	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$993,862</b>	<b>\$0</b>

Based on the list of historical tornado events for the City of Geneva, there has been one recorded event since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the City of Geneva can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

The City of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table J-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

<sup>13</sup> Historical events are reported from January 1994 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

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According to the American Community Survey (ACS) five-year estimates for 2021, a total of 5 manufactured homes are located in the City of Geneva (0.1 percent of total housing stock). In addition, 92 percent (approximately 4,767 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table J-31. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
City of Geneva	4,767	5

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-32).

**Table J-32. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Geneva	2,339

The total loss estimate due to tornado events is \$993,862 (in 2023 dollars), having an approximate annual loss estimate of \$34,271. Based on historic damages and best available data the impact of a tornado event on the City of Geneva would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities, and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table J-33. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
City of Geneva	\$993,862	\$34,271

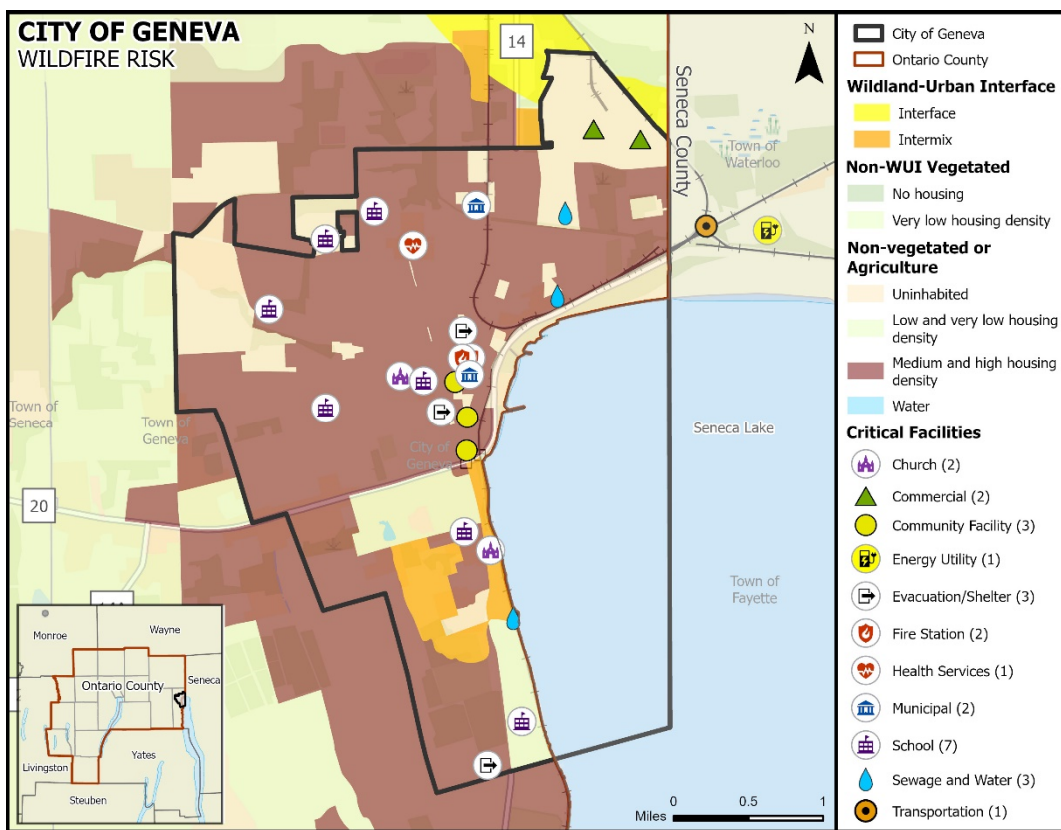
# ANNEX J: CITY OF GENEVA

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure J-4). The City of Geneva planning area is considered at low risk for wildfires with limited WUI areas.

Figure J-4. City of Geneva Wildland Urban Interface Map<sup>14</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the City of Geneva, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

<sup>14</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

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### *EXTENT*

Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

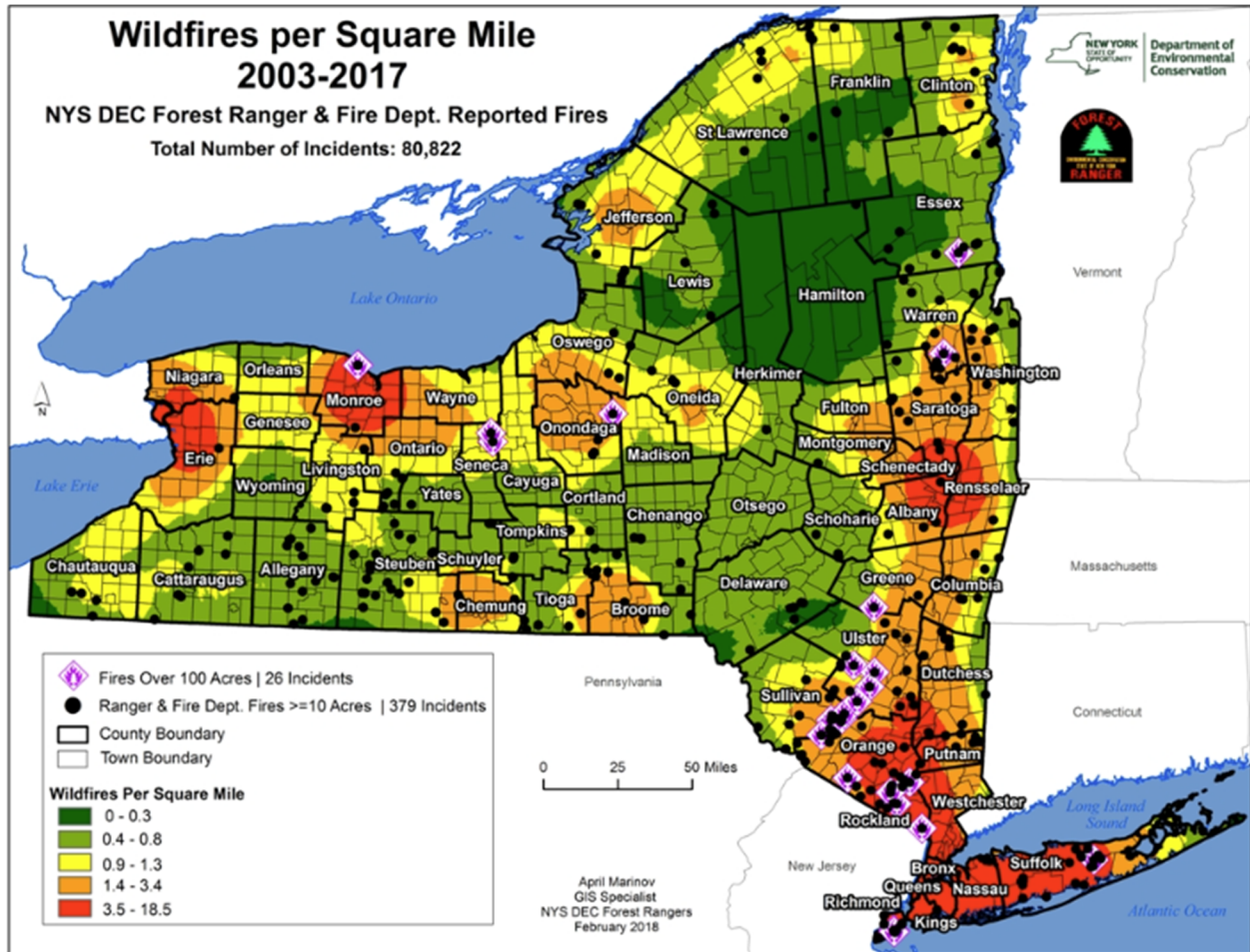
The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure J-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.



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Figure J-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The City of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).



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**Table J-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

For the City of Geneva, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

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### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, 21 wind events are known to have occurred in the City of Geneva. Table J-35 presents information on known historical events impacting the City of Geneva.

**Table J-35. Historical Wind Events, 1956-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Geneva	7/20/2006	70	0	0	\$291,077	\$145,539
	6/21/2007	50	0	0	\$21,322	\$0
	7/19/2008	50	0	0	\$47,126	\$0
	7/26/2009	51	0	0	\$20,629	\$0
	5/29/2011	50	0	0	\$10,486	\$0
	5/21/2013	50	0	0	\$12,714	\$0
	6/12/2015	50	0	0	\$18,616	\$0
	7/18/2016	50	0	0	\$18,462	\$0
	5/18/2017	52	0	0	\$14,522	\$0
	8/15/2017	50	0	0	\$14,476	\$0
	9/4/2017	50	0	0	\$12,000	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	1/23/2018	43	0	2	\$47,795	\$0
	5/25/2019	50	0	0	\$2,313	\$0
	8/18/2019	50	0	0	\$2,309	\$0
	6/21/2021	50	0	0	\$2,180	\$0
	8/29/2021	51	0	0	\$2,165	\$0
	8/29/2021	51	0	0	\$2,165	\$0
	4/1/2023	51	0	0	\$2,056	\$0
	6/26/2023	51	0	0	\$2,056	\$0
	6/26/2023	51	0	0	\$2,056	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>2</b>	<b>\$556,131</b>	<b>\$145,539</b>

<sup>15</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

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Based on the list of historical wind events for the City of Geneva, nine of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the City of Geneva can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The City of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table J-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
City of Geneva	2 Churches, 2 Commercial Facilities, 1 Energy Utility Facility, 3 Evacuation Shelters, 2 Fire Stations, 1 Health Service Facility, 2 Municipal Buildings, 3 Residential Community Facilities, 10 Schools, 4 Sewage and Water Facilities, 2 Bridges, 1 Railroad Facility

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 5 manufactured homes are located in the City of Geneva (0.1 percent of total housing stock). In addition, 92 percent (approximately 4,767 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table J-36. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
City of Geneva	4,767	5

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 19 percent of the City of Geneva’s population live below the poverty level (Table J-37).

**Table J-37 Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
City of Geneva	2,339

Structural impacts of wind events experienced in the City of Geneva would be considered “limited,” with less than 10 percent of property destroyed, and critical facilities shut down for less than 24-hours. However, with two injuries, the impact is considered “Major” with multiple injuries possible depending on the severity of the event. Over the 67.5-year reporting period there has

## ANNEX J: CITY OF GENEVA

been a total of \$701,670 damages (in 2023 dollars) in the City of Geneva due to wind events. The estimated average annual loss from a wind event is \$2,156.

**Table J-38. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
City of Geneva	\$701,670	\$2,156

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX J: CITY OF GENEVA

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>CG-1: Cemetery Creek Drainage</b>	
<b>Name of Jurisdiction:</b>	City of Geneva
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Improper and insufficient drainage along Cemetery Creek.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Implementation of the recommendations detailed in the January 2018 engineering study for the existing Cemetery Creek Storm Sewer
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	CG-1: Cemetery Creek Drainage
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	In the 19 <sup>th</sup> century much of Cemetery Creek was directed through underground pipes. The areas above were later developed making replacement/enlargement of most of the system impractical. Runoff from continued development and recent storm events have exceeded system capacity and resulted in regular flooding of downtown properties. An engineering study was completed in January of 2018 and includes recommendations to mitigate flooding. This project would implement those recommendations which include: <ul style="list-style-type: none"> <li>○ Diversion of a portion of the drainage (study needed)</li> <li>○ Creation of flood storage on individual sites</li> <li>○ Disconnecting properties from the Cemetery Creek drainage system and creating on site drainage/infiltration</li> </ul> Improving access to the drainage system for more regular monitoring and repair.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Future flood damage along Cemetery Creek TBD after completion of diversion study and individual site assessments for system disconnect and on-site drainage.
<b>Estimated Cost:</b>	It was determined that replacement /enlargement of pipes is impractical
<b>Other Factors Considered:</b>	because of extensive high-density development immediately above.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Geneva City Council
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	FEMA Grant, City Budget, individual property owners.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	None
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Defer to Plan Update. Flood damage continues to occur along cemetery creek. In 2023, staff implemented strategies to clean the system removing debris from the creek. The diversion study was not completed. A grant has been submitted to NYS to continue this process. The city will hire an engineering firm to explore mitigation solutions for the creek.

## ANNEX J: CITY OF GENEVA

<b>Previous Action Worksheet</b>	
<b>CG-2: Castle Creek Intermunicipal Drainage Study</b>	
<b>Name of Jurisdiction:</b>	City of Geneva
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Periodic flooding and erosion along Castle Creek. The Castle Creek watershed includes portions of the Town and City of Geneva. Through the City, Castle Creek runs east to west through a dense mix of residential and downtown commercial uses. It outlets into Seneca Lake near a lakefront park and swimming area. Some of it runs through underground culverts. An overall look at this complex watershed is needed to assess conditions and develop solutions to minimize flooding, erosion, and negative impacts to Seneca Lake.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Coordinate with the Town of Geneva to develop a plan to properly manage runoff, drainage, and erosion throughout the Castle Creek Watershed.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	CG-2: Castle Creek Intermunicipal Drainage Study
<b>Name of Action or Project:</b>	CG-2: Castle Creek Intermunicipal Drainage Study
<b>Action or Project Description:</b>	Work with the Town of Geneva to develop an intermunicipal watershed plan that culminates in workable strategies to minimize future flooding and erosion along Castle Creek and limit potential negative impacts to the environment, public health, and property.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Limit future negative impacts to public health and the environment as well as property damage caused by erosion and flooding along Castle Creek
<b>Estimated Cost:</b>	Castle Creek
<b>Other Factors Considered:</b>	\$100,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Planning will facilitate the intermunicipal effort
<b>Action/Project Priority:</b>	Medium to high
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	FEMA Grant, City Budget, individual property owners.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	None
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed and Defer to Plan Update. The city annually reviews the creek to clean debris, especially following large weather events. Partial cleaning of the system at Genesee Street and Geneva streets has occurred and three catch screens have been placed in the creek in 2023. An intermunicipal watershed plan that culminates in workable strategies to minimize future flooding and erosion along Castle Creek and limit potential negative impacts to the environment, public health, and property has not been created.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX J: CITY OF GENEVA

<b>Previous Action Worksheet</b>	
<b>CG-3: Marsh Creek Intermunicipal Drainage Study</b>	
<b>Name of Jurisdiction:</b>	City of Geneva
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Periodic flooding and erosion along Marsh Creek. The Marsh Creek watershed includes portions of the Town and City of Geneva. Through the City, Marsh Creek runs north to south through a dense pattern of mixed development, and outlets into Seneca Lake near a lakefront park and swimming area. Some of it runs through underground culverts. The City of Geneva Sewage Treatment Plan also outlets into Marsh Creek about 0.6 miles north of the inlet to Seneca Lake. A watershed wide approach is needed to address longstanding problems with, erosion, flooding, and negative impacts to water quality.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Coordinate with the Town of Geneva to develop a plan to properly manage runoff, drainage, and erosion throughout the Marsh Creek Watershed.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	CG-3: Marsh Creek Intermunicipal Drainage Study
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Work with the Town of Geneva to develop an intermunicipal watershed plan that culminates in workable strategies to minimize future flooding and erosion along Marsh Creek and limit negative impacts to the environment, public health, and property.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Limit future negative impacts to public health and the environment as well as property damage caused by erosion and flooding along Marsh Creek
<b>Estimated Cost:</b>	\$100,000
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Planning will facilitate the intermunicipal effort
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	FEMA Grant, City Budget, individual property owners.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	None
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed and Defer to Plan Update. The City is working with Soil and Water as stream retention has been increased within Marsh Creek. The Wastewater Treatment Plant is located on the creek and they annually support creek clean up in these areas.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	An intermunicipal watershed plan that culminates in workable strategies to minimize future flooding and erosion along Marsh Creek and limit potential negative impacts to the environment, public health, and property has not been created.



# ANNEX J: CITY OF GENEVA

## NEW MITIGATION ACTIONS

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	2.3	Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Tree Trimming Program: Tree maintenance is a priority and a plan to address continued maintenance to reduce risk of further damage will need to be developed and implemented. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Continue and expand our routine tree trimming program that clears tree limbs near power lines and/or hanging in right-of-way; Remove dead trees from right-of way and drainage systems on a scheduled basis.	No	N/A	12 months	City Council and Public Works	Staff Time	Reduce damages to infrastructure; Ensure continuity of services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget, Staff time	M	Safety/Security
2	6.1	Drought, Extreme Heat, Flood, Wildfire	Smart Growth Initiatives: Consider in an effort to make the City more resilient and help reduce the impacts of climate change City is experiencing. This project protects the community and reduces the risk of flooding.	Adopt smart growth initiatives. Incorporate a formal hazard mitigation plan in long-term community development planning activities.	No	N/A	12 months	City Council	Staff Time	Reduce risk in high hazard areas by promoting and incentivizing development in low-risk areas; Build resiliency within the community; Reduce risk of damages through improved planning and construction practices.	Local Department Budget, Staff time	M	Communication
3	6.1	Drought, Flood, Landslide, Wildfire	Landscape Ordinance: Current standards do not fully account for hazard mitigation and should be reviewed and updated. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Update and/or adopt an additional landscape ordinance (selection and planting guidelines).	No	N/A	12 months	City Council	Staff Time	Reduce impact on groundwater; Reduce rainfall runoff volume and risk of flooding; Reduce risk and spread of wildfire.	Local Department Budget, Staff time	M	Communication, Safety/Security

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
4	2.3	Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, Utility Failure	Burial of Utilities: Current standards do not require alternative mitigation of utility lines. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Create a local ordinance to update the standards for burial of electrical, telephone, cable lines and other utilities in new developments.	Yes	N/A	12 months	City Council	Staff Time, in conjunction with local utility service providers	Reduce damages to infrastructure; Ensure continuity of critical services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget, Staff time,	M	Energy (Fuel/Power), Safety/Security
5	6.1	Drought, Flood	Green Infrastructure Program: Explore alternative ways to promote mitigation and preserve the land within the City due to the impact of climate change. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Establish, adopt and implement a "green infrastructure" program for parks, nature preserves, greenbelts, etc.	No	N/A	36-60 months	City Council	Staff Time	Reduce impacts of flood through expanded greenspace and restoration of floodplains and wetlands; Reduce impacts of drought through green infrastructure that works to replenish groundwater reserves; Reduce impacts of Urban Island Heat effect in densely populated areas through tree planting.	Local Department Budget, Staff time	L	Safety/Security
6	4.2	Flood	Feasibility Study at Sewage Treatment Plant (South Plant), 1 Mile Point, Geneva, NY 14456: There is potential flood risk as location is near (or within) flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	City of Geneva will complete a feasibility study for the Sewage Treatment Plant (South Plant) facility to identify the current flood risk, determine if mitigation is needed, assess	Further review required	Yes	24-36 months	City Council and Public Works	Cost determined based on feasibility assessment	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function; reduce emergency response required during flood events.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable)	H	Safety/Security, Communication

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CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				alternatives, and implement feasible alternative for flood reduction, protecting the infrastructure to the 0.2% flood level.							local bonds		
7	4.2	Flood	Feasibility Study at Gulvin Park Pump Station 120 Middle Street, Geneva, NY 14456: There is potential flood risk as location is near (or within) flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	The City of Geneva will complete a feasibility study for the Gulvin Park Pump Station to identify the current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the facility to the 0.2% flood level if determined to be feasible.	Yes	Further review required	24-36 months	City Council and Public Works	Cost determined based on feasibility assessment	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function; reduce emergency response required during flood events.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Communication
8	2.3	Flood	Debris Clearing Program: Extreme rainfall and snowmelt events result in high stormwater flow rates, which can result in significant amounts of debris (including sediment, rubble, and woody debris) being mobilized and directed to downstream portions of drainage courses. The build-up of debris can compromise the performance of bridges and culverts, jeopardizing these installations (as well as the associated roadways). This project protects the community and reduces the risk of flooding.	Update and continue to implement a program for clearing debris from bridges, drains and culverts.	Yes	Further review required	24 months	City Council and Public Works	\$50,000 (annually)	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
9	4.2	Flood	Flood Risk Study: Evaluation of high-risk areas within the City to identify flood mitigation needs to reduce risk. Floodwaters can cause debris to back up at the bridge, exacerbating flooding, damaging the bridge, and causing scour and erosion to embankments at the bridge site. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Undertake a comprehensive study of flood risk and reduction alternatives, with the assistance of the US Army Corps of Engineers. Implement feasible alternatives for flood reduction.	Yes	Further review required	24 - 36 months	City Council	\$500,000	Improve risk assessment; Reduce risk of damages or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Communication, Safety/Security
10	4.1	Flood	Community Rating System: Currently the City recognizes the minimum requirements for the NFIP program. By exploring the CRS program the City would potentially receive insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts to reduce and avoid flood damage to insurable property, strengthen and support the insurance aspects of the National Flood Insurance Program and foster comprehensive floodplain management. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Learn more and explore joining the Community Rating System program.	Yes	N/A	36-60 months	City Council	Staff Time	Reduce flood insurance premiums for local residents; Reduce flood risk and build resiliency.	Local Department Budget, Staff time	L	Safety/Security

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
11	6.1	Flood	Wetland Regulations: Reviewing and updating local codes and ordinances to better protect and maintain water resources. This project protects the community and reduces the risk of flooding.	Adopt additional wetlands development regulations for new development.	No	Further review required	36-60 months	City Council	Staff Time	Preserve/restore the natural function of the floodplain; Reduce flood damages and risk of injuries or fatalities through comprehensive development standards.	Local Department Budget, Staff time	M	Safety/Security
12	2.3	Flood	Erosion Control: Extreme rainfall and snowmelt events result in high stormwater flow rates, which can result in significant amounts of debris (including sediment, rubble, and woody debris) being mobilized and directed to downstream portions of streams. The build-up of debris can compromise the performance of downstream bridges and culverts, jeopardizing these installations (as well as the associated roadways).	Require erosion/sedimentation controls to be utilized during construction; Include on-site sediment retention as a development requirement.	No	Further review required	36-60 months	City Council	Staff Time	Reduce risk of flood damages due to erosion or scour during flood events. Erosion	Local Department Budget, Staff time	M	Safety/Security
13	5.4	Flood	Upgrade of culverts and drains: Extreme rainfall events result in high stormwater flow rates, which result in the destabilization of stream channels (including streambanks), that causes erosion and deposition within these streams, as well as stream migration. The erosion	Continue to assess and implement upgrades undersized stormwater drains and culverts.	No	Further review required	Annually	City Council	Staff Time, and additional cost determined based on assessment	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget, Staff time	M	Safety/Security

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CITY OF GENEVA PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			of streambanks and migration of stream channels can jeopardize adjacent buildings, bridges, culverts, roadways, utilities, and other infrastructure. This project protects the community and reduces risk of flooding.										
14	5.4	Flood	Drainage System Improvements: Inadequate drainage systems cause flooding, damages to roadways, and create hazardous driving conditions for motorists. This project protects infrastructure, reduces risk, cost of reparation, and prevents injury to residents.	Increase drainage capacity; add stormwater detention and/or retention basins as deemed necessary to reduce flood risk.	No	Further review required	24 – 48 months	City Council	\$1,000,000	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
15	1.3	Flood	Vegetation Maintenance: Loose vegetation mix with drainage water and cause damming and plugged culverts. When this occurs, flood water escapes the existing drainage network, causing significant damage to public and private property. Recovery efforts are time consuming and labor intensive. This project protects the community and reduces the risk of flooding.	Retain and maintain natural vegetation in stormwater channels.	No	Further review required	12- 24 months	City Council	Staff Time	Reduce risk of flood damages due to erosion or scour during flood events.	Local Department Budget	H	Safety/Security

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
16	1.4	Flood, Water Supply Contamination	Maintenance of storm and sanitary sewer lines: City currently does not have a routine maintenance schedule. This project protects the community and reduces risk of flooding.	Create regular cleaning and televising schedule of storm and sanitary sewer lines.	No	Further review required	12 months	City Council	Staff Time, in conjunction with wastewater district	Reduce risk of flood water contamination; Reduce risk of surface water infiltration and sewage backup; Ensure continuity of critical services.	Local Department Budget	M	Safety/Security
17	2.1	Flood	Stream Stabilization: Stream banks along steeper roadways are prone to significant erosion, as the result of extreme rainfall events. During these events, peak stormwater flows generate high flow velocities, resulting in significant erosion and deepening of stream banks, including damage to roadways. This damage presents increased hazards for motorists. This project protects the community and reduces risk of flooding.	Collaborate with Soil and Water of Ontario County to further stabilize stream banks.	No	Further review required	12 months	City Council	Staff Time, in conjunction with Soil and Water	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget	M	Safety/Security
18	4.2	Flood	Cemetery Creek Drainage: In the 19th century much of Cemetery Creek was directed through underground pipes. The areas above were later developed making replacement/enlargement of most of the system impractical. The City has submitted a grant continue this process and is in consultation with an engineering firm. This project protects the community and reduces risk of flooding.	Complete diversion study. Implement mitigation measures as identified in study to improve access to the drainage system.	No	Further review required	12-36 months	City Council	\$500,000	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security



# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
19	5.4	Flood	Castle Creek Intermunicipal Drainage Study: Periodic flooding and erosion along Castle Creek. The Castle Creek watershed includes portions of the Town and City of Geneva. Through the City, Castle Creek runs east to west through a dense mix of residential and downtown commercial uses. It outlets into Seneca Lake near a lakefront park and swimming area. Some of it runs through underground culverts. An overall look at this complex watershed is needed to assess conditions and develop solutions to minimize flooding, erosion, and negative impacts to Seneca Lake. This project protects the community and reduces risk of flooding.	Continue to develop solutions and addresses improvements/maintenance to properly manage runoff, drainage, and erosion while identifying potential negative impacts to the environment, public health, and property throughout the Castle Creek Watershed.	No	Further review required	On-going (Annually)	City Council and Ontario County Planning Department	\$100,000	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event. Reduce negative impacts to the environment, public health, and property.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
20	2.3	Flood	Marsh Creek Intermunicipal Drainage Study and Wastewater Treatment Plant: Periodic flooding and erosion along Marsh Creek. The Marsh Creek watershed includes portions of the Town and City of Geneva. Through the City, Marsh Creek runs north to south through a dense pattern of mixed development, and outlets into Seneca Lake near	Continue to coordinate and develop a plan to properly manage runoff, drainage, and erosion, while identifying potential negative impacts to the environment, public health, and property throughout the Marsh Creek Watershed. Annual maintenance conducted.	No	Further review required	On-going (Annually)	City Council and Soil and Water District	\$100,000	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event. Reduce negative impacts to the environment, public health, and property.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			a lakefront park and swimming area. Some of it runs through underground culverts. The City of Geneva Sewage Treatment Plan also outlets into Marsh Creek about 0.6 miles north of the inlet to Seneca Lake. A watershed wide approach is needed to address longstanding problems with, erosion, flooding, and negative impacts to water quality. This project protects the community and reduces risk of flooding.										
21	3.1	Flood	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include providing FEMA/NFIP materials to mortgage lenders, real estate agents and insurance agents and place them in local libraries, residential flood mitigation techniques, installation of backflow valves, "turn around – don't down campaign, etc.	No	N/A	12 months	City Council, Ontario County Planning in partnership with Soil and Water Conservation district and Cooperatives Extension	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
22	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
23	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
24	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
25	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
26	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	City Council, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
27	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or	No	N/A	36 months	City Council, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).									
28	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	City Council, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
29	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	City Council, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
30	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	City Council, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX J: CITY OF GENEVA

CITY OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
31	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	City Council, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
32	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	City Council, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication



## ANNEX J: CITY OF GENEVA

### CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	City of Geneva
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	X
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	X
Continuity of Operations	X
Drought Contingency Plan	X
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	X
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	X
Evacuation Plan	X
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	X
Natural Resource Conservation Plan	X
Open Space Plan	X
Stormwater Management Plan	X
Transportation Plan	X
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX J: CITY OF GENEVA

COMMUNITY CAPABILITY CHECKLIST	City of Geneva
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	X
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	X
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	X
Mutual Aid Agreement	X

## ANNEX J: CITY OF GENEVA

COMMUNITY CAPABILITY CHECKLIST	City of Geneva
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	X
Public Education/ Awareness Programs	X
Stream Maintenance Program	X
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	X
Public Information Official	X
Resource Development/ Grant Writer	





**ANNEX K**  
**TOWN OF GENEVA**

ANNEX K: TOWN OF GENEVA

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## ANNEX K: TOWN OF GENEVA

### JURISDICTION PROFILE

#### OVERVIEW

The Town of Geneva is in Ontario County, New York with a population of just under 3,500. The town is in the southeastern part of the county and borders the City of Geneva. According to the United States Census Bureau, the town has a total area of 19.1 square miles, all land. The southern town line is the border of Yates County, and the eastern town boundary is the border of Seneca County. Part of the town is on the northwestern shore of Seneca Lakes, one of the Finger Lakes. US 20 is an east-west highway and NY 14 and 14A are north-south. NY 245 is an east-west highway in the south part of the town. Figure K-1 shows the general location of the Town of Geneva.

### TOWN OF GENEVA CONTACT INFORMATION

Name: Mark Venuti

Title: Town Supervisor

Phone: 315-789-3922

Address: 3750 County Road 6, Geneva, NY

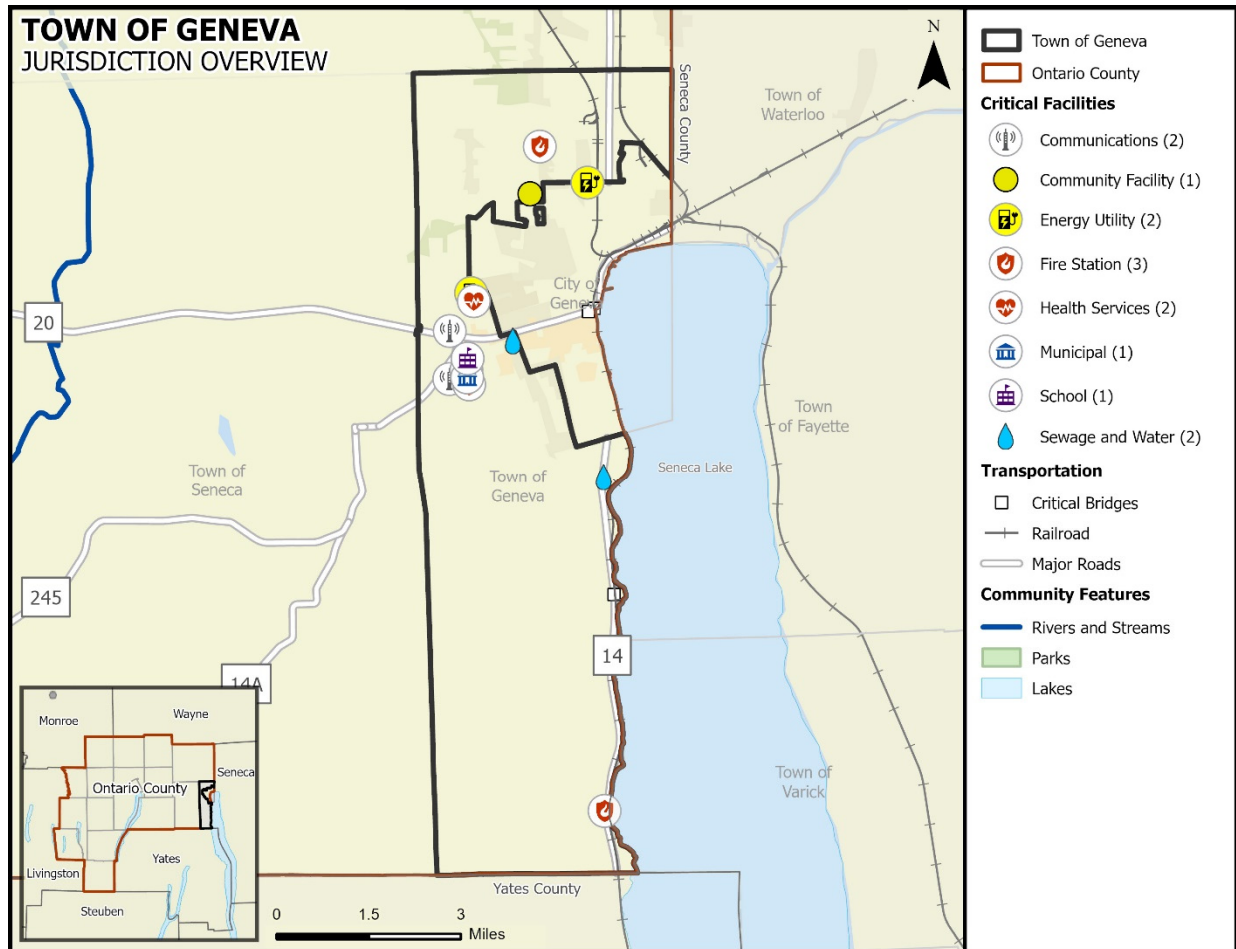
Email: [supervisor@townofgeneva.com](mailto:supervisor@townofgeneva.com)

### NOTE TO THE REVIEWER

It is noted that the Town of Geneva and the City of Geneva are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

# ANNEX K: TOWN OF GENEVA

Figure K-1. Town of Geneva Planning Area<sup>1</sup>



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Geneva has an official population of 3,473 residents, a 5.5 percent increase since the 2010 census. Table K-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Geneva using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>



## ANNEX K: TOWN OF GENEVA

**Table K-1. Population Distribution for the Town of Geneva**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Geneva	3,291	3,457	5%	138	1,035	322

### POPULATION GROWTH

The official 2020 Town of Geneva population is 3,473. Overall, the Town of Geneva experienced an increase in population between 1990 and 2020 of 17.1 percent, or an increase by 506 residents. Between 2010 and 2020, the Town of Geneva experienced a population growth. Table K-2 provides historic change rates in the Town of Geneva.

**Table K-2. Population Growth for the Town of Geneva, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Geneva	2,967	3,289	3,291	3,473	506	17.1%	182	5.5%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Geneva might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table K-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX K: TOWN OF GENEVA

**Table K-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table K-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table K-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Geneva	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Geneva’s website. A total of 4 surveys were completed for the Town of Geneva. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX K: TOWN OF GENEVA

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Geneva's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX K: TOWN OF GENEVA

### HAZARD PROFILES

#### DAM FAILURE

The Town of Geneva is not profiling dam failure. The Town of Geneva does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX K: TOWN OF GENEVA

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Geneva can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Geneva, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Geneva planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of Geneva:

**Table K-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

The population over 65 in the Town of Geneva is estimated at 30 percent of the town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 1,173 potentially vulnerable residents in the Town of Geneva based on age. In addition, an estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-6).

**Table K-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Geneva	1,035	138	322

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX K: TOWN OF GENEVA

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Geneva can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Geneva, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Geneva planning team members identified the following critical facilities (Table K-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Town of Geneva:

**Table K-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

The population over 65 in the Town of Geneva is estimated at 30 percent of the town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 1,173 potentially vulnerable residents in the Town of Geneva based on age. In addition, an estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-8).

**Table K-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Geneva	1,035	138	322

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX K: TOWN OF GENEVA

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Geneva can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Geneva, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Geneva planning team members identified the following critical facilities (Table K-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of Geneva:

**Table K-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

The population over 65 in the Town of Geneva is estimated at 30 percent of the town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 1,173 potentially vulnerable residents in the Town of Geneva based on age. In addition, an estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-10).

**Table K-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Geneva	1,035	138	322

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.



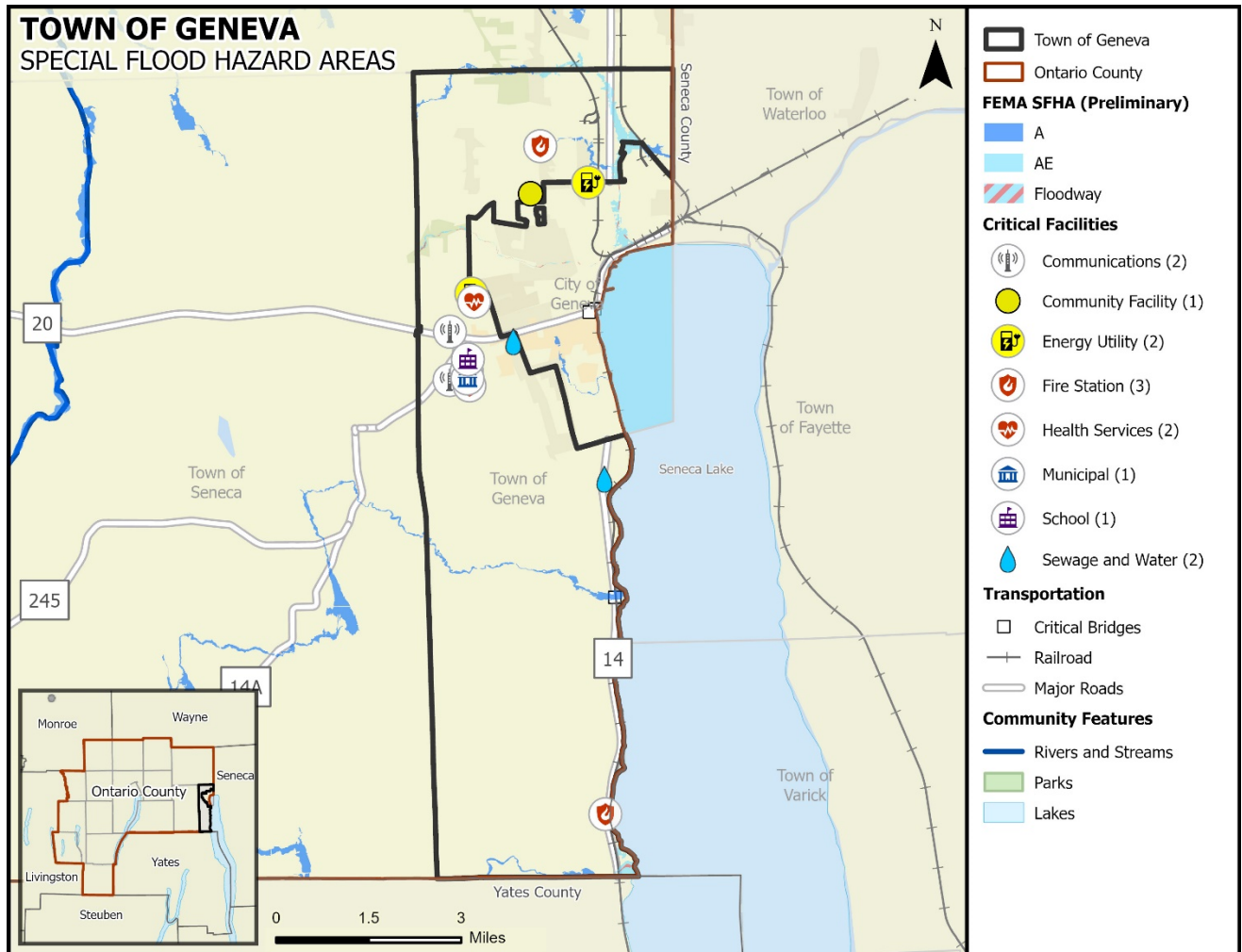
# ANNEX K: TOWN OF GENEVA

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Geneva, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Geneva, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure K-2.

**Figure K-2. Estimated Flood Zones in the Town of Geneva<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table K-11 provides the historical occurrences of flood events for the Town of Geneva according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, seven flood events were known to have impacted the Town of Geneva, based upon NCEI records. Flood events are

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX K: TOWN OF GENEVA

often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table K-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Geneva	7/31/2000	0	0	\$257,093	\$0
	5/18/2015	0	0	\$24,909	\$0
	7/13/2017	0	0	\$24,198	\$0
	8/18/2019	0	0	\$1,154	\$0
	8/18/2019	0	0	\$230,880	\$0
	10/26/2021	0	0	\$0	\$0
	7/1/2023	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$538,234</b>	

Based on the list of historical flood events for the Town of Geneva, four of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Geneva can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Geneva planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. There are no critical facilities located in the floodplain in the Town of Geneva. Historic loss estimates due to flood are presented in Table K-12 below.

**Table K-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Geneva	7	\$538,234	\$19,572

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-13). While warning times for these

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX K: TOWN OF GENEVA

type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table K-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Geneva	322

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table K-14 depicts the level of impact for the Town of Geneva.

**Table K-14. Town of Geneva Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Geneva	Limited	The Town of Geneva could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Geneva currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Geneva has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Geneva as a high-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Geneva Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table K-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

## ANNEX K: TOWN OF GENEVA

**Table K-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Geneva	11/4/2003	4/27/2023	Good Standing	0

### *REPETITIVE LOSS*

Table K-16 shows repetitive loss and severe repetitive loss properties for the Town of Geneva.

**Table K-16. Repetitive Loss and Severe Repetitive Loss Properties**

JURISDICTION	BUILDING TYPE	NUMBER OF LOSSES
Town of Geneva	2-4 Family	0
	Assumed Condo	0
	Non-Residential	0
	Other Residential	0
	Single Family*	2

# ANNEX K: TOWN OF GENEVA

## HAIL

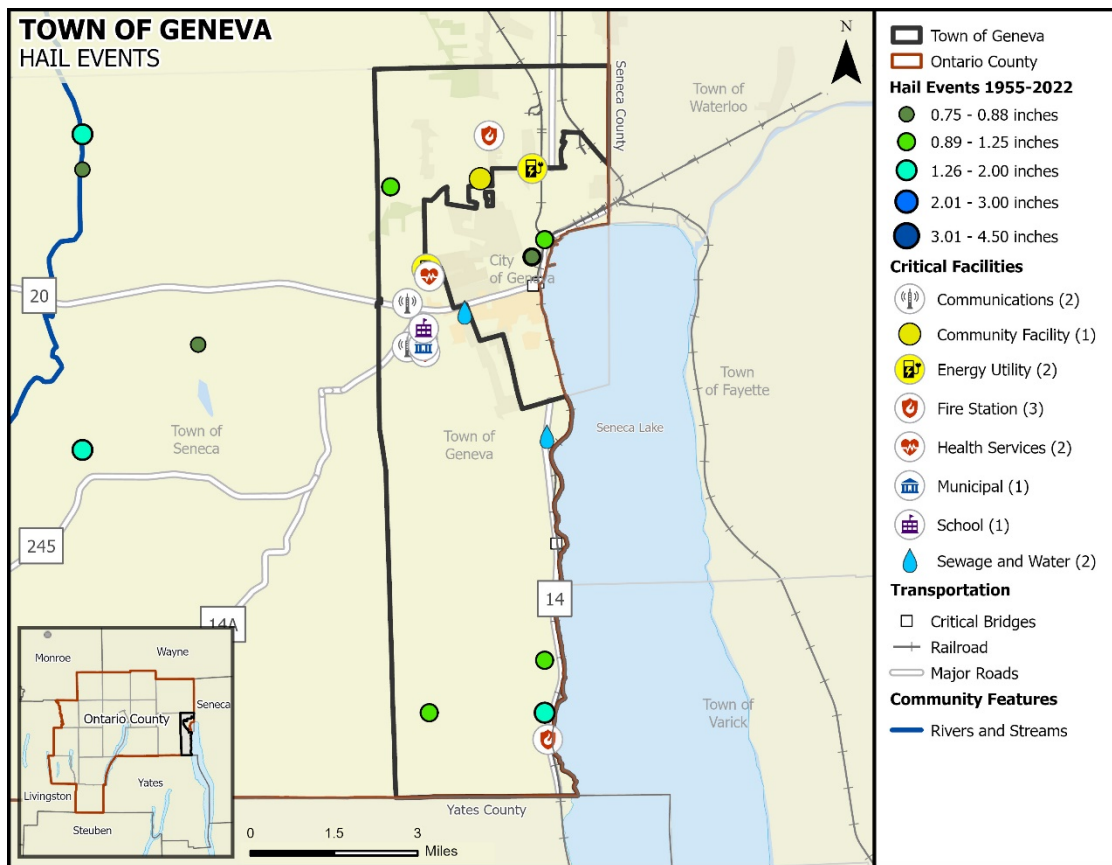
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure K-3 demonstrates that the Town of Geneva is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table K-17. A total of 10 reported historical hail events impacted the Town of Geneva between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of Geneva with latitude and longitude available were plotted (Figure K-3).

**Figure K-3. Historical Hail Events, 1956-2023<sup>11</sup>**



<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX K: TOWN OF GENEVA

**Table K-17. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Geneva	5/10/2000	1	0	0	\$17,269	\$0
	5/24/2000	0.75	0	0	\$86,347	\$0
	10/21/2001	0.75	0	0	\$3,333	\$0
	6/21/2007	0.75	0	0	\$0	\$0
	7/21/2010	1	0	0	\$0	\$0
	5/21/2013	1.75	0	0	\$6,357	\$12,714
	5/21/2013	1.75	0	0	\$19,071	\$0
	5/21/2013	1	0	0	\$6,357	\$0
	7/31/2014	0.88	0	0	\$0	\$24,862
	7/31/2014	1	0	0	\$12,431	\$37,293
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$151,165</b>	<b>\$74,869</b>

Based on the list of historical hail events for the Town of Geneva, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Geneva can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table K-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 59 manufactured homes are located in the Town of Geneva (3 percent of total housing stock). In addition, 74 percent (approximately 1,340 structures) of the housing units were built before 1980.

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX K: TOWN OF GENEVA

These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table K-19. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Geneva	1,340	59

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Geneva's population live below the poverty level (Table K-20).

**Table K-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Geneva	322

Overall, the total loss estimate of property and crops in the Town of Geneva is \$226,034 with an average annualized loss of \$3,373. Based on historic loss and damages, the impact of hail damages on the Town of Geneva can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table K-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Geneva	\$226,034	\$3,373



## ANNEX K: TOWN OF GENEVA

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Geneva can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Geneva, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Geneva planning team members identified the following critical facilities (Table K-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of Geneva:

**Table K-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

The population over 65 in the Town of Geneva is estimated at 30 percent of the town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 1,173 potentially vulnerable residents in the Town of Geneva based on age. In addition, an estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-23).

**Table K-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Geneva	1,035	138	322

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX K: TOWN OF GENEVA

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in Town of Geneva is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. There have been no reported landslide incidents in the Town of Geneva.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Geneva over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Geneva.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslides and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX K: TOWN OF GENEVA

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Town of Geneva from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Geneva is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table K-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-25).

**Table K-25. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Geneva	322

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Geneva due to lightning are considered negligible.

ANNEX K: TOWN OF GENEVA

**Table K-26. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Geneva	\$0	\$0

# ANNEX K: TOWN OF GENEVA

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Geneva, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Geneva can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Geneva, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Geneva planning team members identified the following critical facilities (Table K-27) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of Geneva:

**Table K-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

The population over 65 in the Town of Geneva is estimated at 30 percent of the town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 1,173 potentially vulnerable residents in the Town of Geneva based on age. In addition, an estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-28).

**Table K-28. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Geneva	1,035	138	322

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX K: TOWN OF GENEVA

### TORNADO

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Table K-29 provides the historical occurrences of tornado events for the Town of Geneva according to the National Centers for Environmental Information (NCEI) Storm Events database. From January 1949 through August 2023, 1 tornado event is known to have impacted the Town of Geneva, based upon NCEI records.

**Table K-29. Historical Tornado Events, 1949-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
City and Town of Geneva	8/21/1994	F1	0	0	\$993,862	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$993,862</b>	<b>\$0</b>

Based on the list of historical tornado events for the Town of Geneva, there has been one recorded event since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Geneva can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

#### VULNERABILITY AND IMPACT

The Town of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table K-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

<sup>13</sup> Historical events are reported from January 1949 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX K: TOWN OF GENEVA

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 59 manufactured homes are located in the Town of Geneva (3 percent of total housing stock). In addition, 74 percent (approximately 1,340 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table K-31. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Geneva	1,340	59

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-32).

**Table K-32. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Geneva	322

The total loss estimate due to tornado events is \$993,862 (in 2023 dollars), having an approximate annual loss estimate of \$34,271. Based on historic damages and best available data the impact of a tornado event on the Town of Geneva would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table K-33. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Geneva	\$993,862	\$34,271



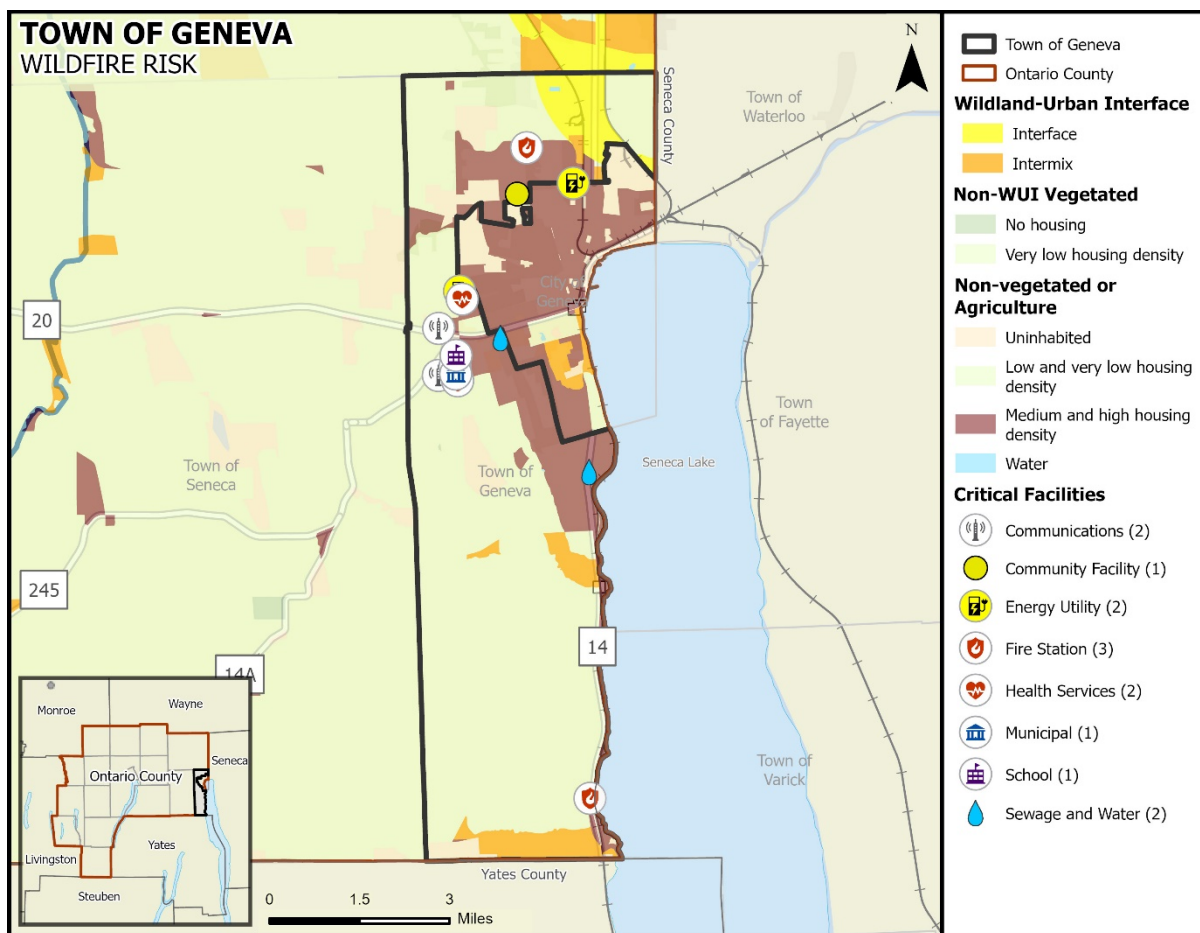
# ANNEX K: TOWN OF GENEVA

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure K-4). The Town of Geneva planning area is considered at low risk for wildfires with limited WUI areas.

Figure K-4. Town of Geneva Wildland Urban Interface Map<sup>14</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>14</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX K: TOWN OF GENEVA

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Geneva, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

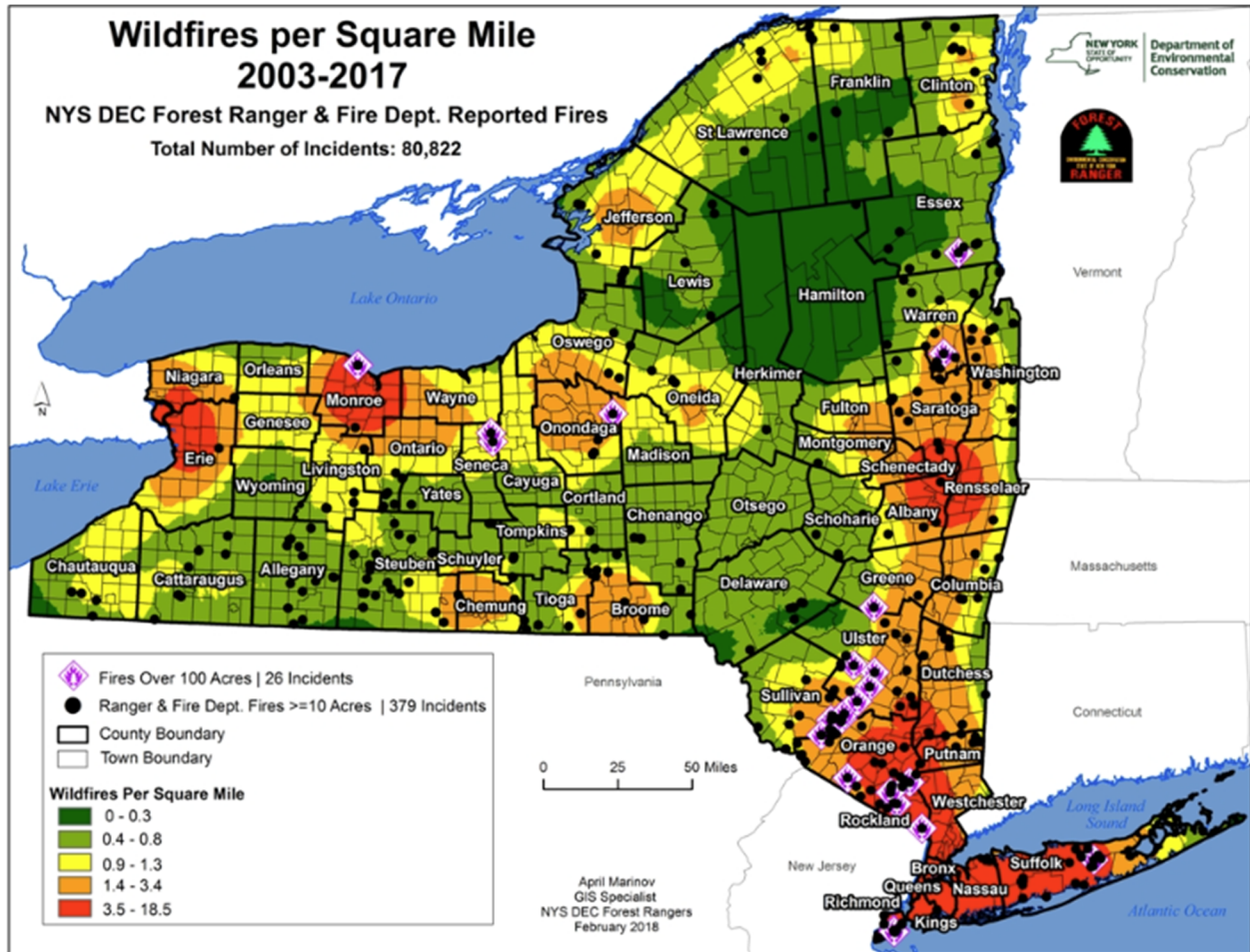
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure K-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.

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Figure K-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

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**Table K-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

For the Town of Geneva, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX K: TOWN OF GENEVA

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, 21 wind events are known to have occurred in the Town of Geneva. Table K-35 presents information on known historical events impacting the Town of Geneva.

**Table K-35. Historical Wind Events, 1956-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Geneva	7/20/2006	70	0	0	\$291,077	\$145,539
	6/21/2007	50	0	0	\$21,322	\$0
	7/19/2008	50	0	0	\$47,126	\$0
	7/26/2009	51	0	0	\$20,629	\$0
	5/29/2011	50	0	0	\$10,486	\$0
	5/21/2013	50	0	0	\$12,714	\$0
	6/12/2015	50	0	0	\$18,616	\$0
	7/18/2016	50	0	0	\$18,462	\$0
	5/18/2017	52	0	0	\$14,522	\$0
	8/15/2017	50	0	0	\$14,476	\$0
	9/4/2017	50	0	0	\$12,000	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	1/23/2018	43	0	2	\$47,795	\$0
	5/25/2019	50	0	0	\$2,313	\$0
	8/18/2019	50	0	0	\$2,309	\$0
	6/21/2021	50	0	0	\$2,180	\$0
	8/29/2021	51	0	0	\$2,165	\$0
	8/29/2021	51	0	0	\$2,165	\$0
	4/1/2023	51	0	0	\$2,056	\$0
	6/26/2023	51	0	0	\$2,056	\$0
	6/26/2023	51	0	0	\$2,056	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>2</b>	<b>\$556,131</b>	<b>\$145,539</b>

<sup>15</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX K: TOWN OF GENEVA

Based on the list of historical wind events for the Town of Geneva, nine of the reported events have occurred since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Geneva can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Geneva planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table K-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Geneva	2 Communication Facilities, 1 Recreational Community Facility, 1 Energy Utility Facility, 3 Fire Stations, 2 Health Service Facilities, 1 Municipal Building, 1 Residential Community Facility, 1 School, 4 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 59 manufactured homes are located in the Town of Geneva (3 percent of total housing stock). In addition, 74 percent (approximately 1,340 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table K-37. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Geneva	1,340	59

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Geneva’s population live below the poverty level (Table K-38).

**Table K-38. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Geneva	322

Structural Impacts of wind events experienced in the Town of Geneva would be considered “Limited,” with less than 10 percent of property destroyed, and critical facilities shut down for less than 24-hours. However, with two injuries, the impact is considered “major” with multiple injuries possible depending on the severity of the event. Over the 67.5-year reporting period there has

# ANNEX K: TOWN OF GENEVA

been a total of \$701,670 damages (in 2023 dollars) in the Town of Geneva due to wind events. The estimated average annual loss from a wind event is \$10,395.

**Table K-39. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Geneva	\$701,670	\$10,395

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.



# ANNEX K: TOWN OF GENEVA

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TGe-1: Stormwater/Flood Management</b>	
<b>Name of Jurisdiction:</b>	Town of Geneva
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Drainage is a concern - Town-wide storm water management and drainage plan are needed with primary focus will on future development, including special drainage districts; town needs regulations to secure drainage easements to improve stormwater management and protect critical facilities from a 500yr flood event.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Adoption of conservation easements
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TGe-1: Stormwater/flood management - review/update townwide stormwater study; public education/outreach
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Review of 2004 Town Wide Storm water Study for impacts and updates. Public education and outreach
<b>Summary of Evaluation Benefits (losses avoided):</b>	Mitigation of storm water impact from intense storm events; lessen potential of flooding of neighboring homes; as well as decreasing nutrient and sediment loading into Seneca Lake
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	Near term (2020)
<b>Potential Fund Sources:</b>	CFA
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Outreach to property owners with streams and floodways located on their lands.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed and Defer to Plan Update. The Town has added relevant code sections and design standards and installed stormwater control facilities in critical areas with more planned, however the Town would still like to enhance their current procedures.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX K: TOWN OF GENEVA

<b>Previous Action Worksheet</b>	
<b>TGe-2: Stormwater Management – MS4 Program</b>	
<b>Name of Jurisdiction:</b>	Town of Geneva
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Stormwater management concerns - participate in MS4 program
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TGe-2: Stormwater Management and erosion control - adoption of an MS4 Stormwater Management Program
<b>Name of Action or Project:</b>	an MS4 Stormwater Management Program
<b>Action or Project Description:</b>	Adoption of an MS4 Stormwater Management Program
<b>Summary of Evaluation Benefits (losses avoided):</b>	Less sediment and nutrient loading in Seneca Lake \$25,000 for system upgrades to bring it into compliance
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Superintendent of Water and Sewer
<b>Action/Project Priority:</b>	Moderate
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	CFA
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Public Works Program, Floodplain Management Program
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Delete Action. After review of the options in consultation with town's engineering firm, the town decided not to adopt MS4.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX K: TOWN OF GENEVA

<b>Previous Action Worksheet</b>	
<b>TGe-3: Kashong Creek Bank Stabilization and Monitoring</b>	
<b>Name of Jurisdiction:</b>	Town of Geneva
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Streambank stabilization - Kashong Creek Bank Stabilization Project - large rock boulders (rip rap) protect main water line from well head. Need to maintain.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	TGe-3: Kashong Creek bank stabilization and monitoring
<b>Action or Project Description:</b>	Monitoring Kashong Creek to insure protection of Town's 3 well heads
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Avoid contamination of public water supply to over 7,000 customers \$25,000 for bank stabilization Water Department Staffing – monitoring stage
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Water Dept.
<b>Action/Project Priority:</b>	Moderate
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	Water Department - monitoring stage
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Quarterly inspections
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Completed and Defer to Plan Update. The Town has completed some work, but further analysis is required to determine if project is completed or if additional action is needed.

# ANNEX K: TOWN OF GENEVA

## NEW MITIGATION ACTIONS

TOWN OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.2	Flood, Snow, Storm, Tornado, Wildfire, Wind	Emergency Notification System: The general public may not have the means to access educational material or notification alerts. By considering an area wide notification system ensures community members are aware of risk.	Look to coordinate with County to activate locally an area-wide telephone Emergency Notification System ("Reverse 911") through exploring software and potential vendors.	No	N/A	24-36 months, in progress	Town Board	\$100,000	Reduce risk to residents through improved communication and early warning.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Communication
2	5.4	Flood	Drainage System Improvements: Inadequate drainage systems cause flooding, damages to roadways, and create hazardous driving conditions for motorists.	Assess drainage system. As identified, increase drainage capacity; add stormwater detention and/or retention basins as deemed necessary to reduce flood risk.	No	Further review required	12 – 60 months	Town Board and Public Works	\$1,000,000	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
3	2.3	Flood	Stormwater/Flood Management: Flooding and severe storms has caused concerns and risk. Loose branches, brush and vegetation mix with drainage water and cause damming and plugged culverts. When this occurs, flood water escapes the existing drainage network, causing significant damage to public and private property.	Review and update town-wide stormwater study as needed to enhance current procedures. Conduct public education and outreach for high-risk areas.	No	Further review required	On-going	Town Board	Staff Time	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function; reduce emergency response required during flood events.	Local Department Budget; local bonds	H	Safety/Security

# ANNEX K: TOWN OF GENEVA

TOWN OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			Recovery efforts are time consuming and labor intensive. This project protects the community and reduces risk of flooding.										
4	1.4	Flood, Water Supply Contamination	Kashong Creek Bank Stabilization and Monitoring: Extreme rainfall and snowmelt events result in high stormwater flow rates, which can result in significant amounts of debris (including sediment, rubble, and woody debris) being mobilized and directed to downstream portions of drainage courses. The build-up of debris can compromise the performance of bridges and culverts, jeopardizing these installations (as well as the associated roadways). This project protects the community and reduces risk of flooding.	Continue further assessments needed to maintain creek to ensure protection of Town's 3 well heads.	No	Further review required	On-going	Town Water Department	\$25,000	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event. Avoids contamination of public water supply to over 7,000 customers.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
5	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX K: TOWN OF GENEVA

TOWN OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
6	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX K: TOWN OF GENEVA

TOWN OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
8	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication



# ANNEX K: TOWN OF GENEVA

TOWN OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
11	3.3	Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
12	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
13	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX K: TOWN OF GENEVA

TOWN OF GENEVA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.									
14	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
15	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX K: TOWN OF GENEVA

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Geneva
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	X
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	X
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX K: TOWN OF GENEVA

COMMUNITY CAPABILITY CHECKLIST	Town of Geneva
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX K: TOWN OF GENEVA

COMMUNITY CAPABILITY CHECKLIST	Town of Geneva
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	
Public Information Official	X
Resource Development/ Grant Writer	





**ANNEX L**  
**TOWN OF GORHAM**

# ANNEX L: TOWN OF GORHAM

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# ANNEX L: TOWN OF GORHAM

## JURISDICTION PROFILE

### OVERVIEW

The Town of Gorham is in Ontario County, New York with a population of just over 4,100. The town is at the southern border of the county, southeast of Canandaigua. According to the United States Census Bureau, the town has a total of 53.2 square miles, of which 48.9 square miles is land and 4.3 square miles is water. The southern town line is the border of Yates County, and the western town line is marked by Canandaigua Lake, one of the Finger Lakes. Figure L-1 shows the general location of the Town of Gorham.

## TOWN OF GORHAM CONTACT INFORMATION

Name: Fred Lightfoote

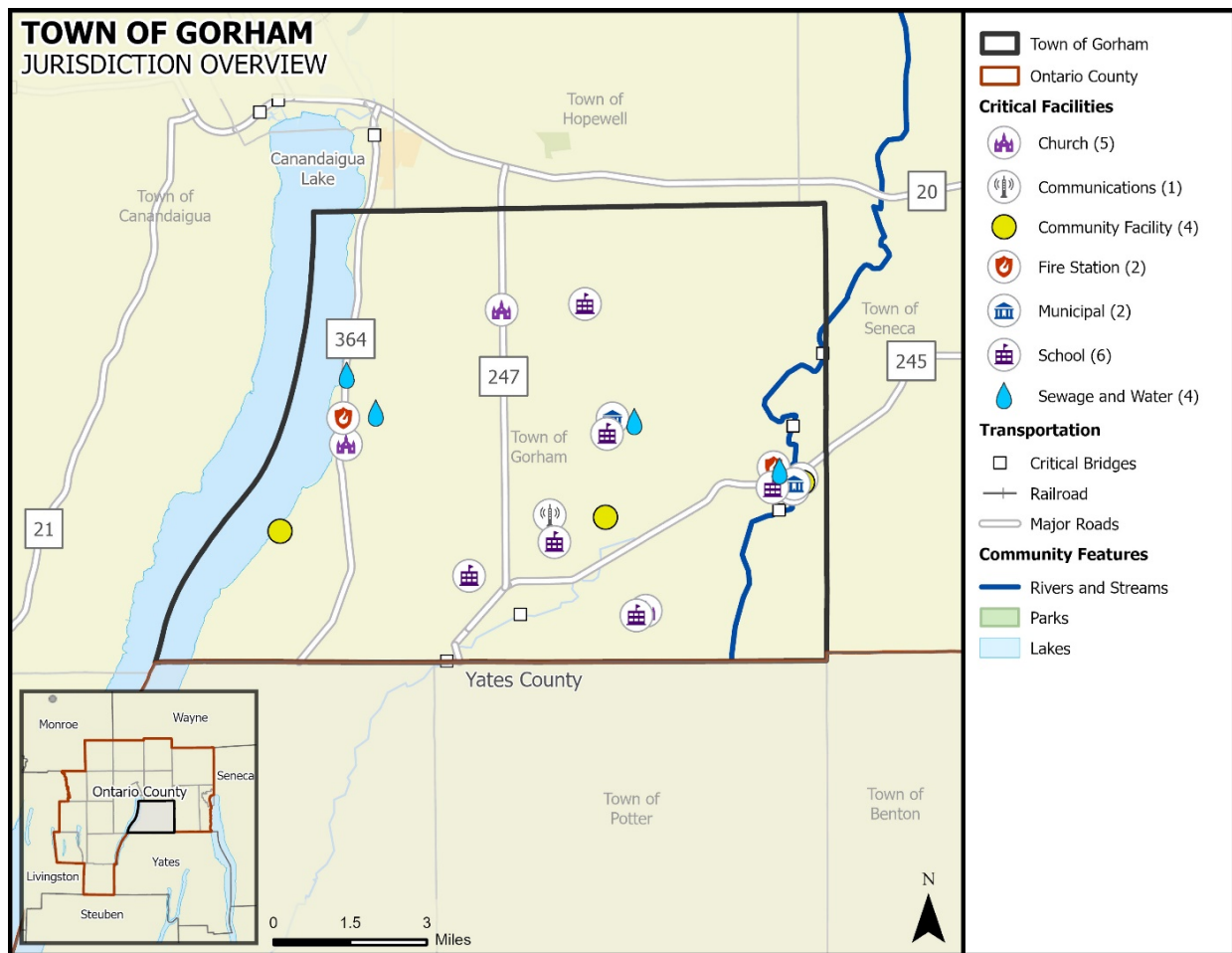
Title: Town Supervisor

Phone: 585-526-5231

Address: PO Box 224/4736 South 1<sup>st</sup> Street,  
Gorham, NY 14461

Email: [flightfoote@gorham-ny.org](mailto:flightfoote@gorham-ny.org)

Figure L-1. Town of Gorham Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

## ANNEX L: TOWN OF GORHAM

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Gorham has an official population of 4,106 residents, a 3.3 percent decrease since the 2010 census. Table L-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Gorham using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table L-1. Population Distribution for the Town of Gorham**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Gorham	4,247	4,145	-2.4%	267	1,068	211

### POPULATION GROWTH

The official 2020 Town of Gorham population is 4,106. Overall, the Town of Gorham experienced an increase in population between 1990 and 2020 of 17.4 percent, or an increase by 609 residents. Between 2010 and 2020, the Town of Gorham experienced a population decline. Table L-2 provides historic change rates in the Town of Gorham.

**Table L-2. Population Growth for the Town of Gorham, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Gorham	3,497	3,776	4,247	4,106	609	17.4%	-141	-3.3

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Gorham might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX L: TOWN OF GORHAM

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table L-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

**Table L-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table L-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table L-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Gorham	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Gorham’s website. A total of 0 surveys were completed for the Town of Gorham.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX L: TOWN OF GORHAM

Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews, and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Gorham's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX L: TOWN OF GORHAM

### HAZARD PROFILES

#### DAM FAILURE

The Town of Gorham is not profiling dam failure. The Town of Gorham does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX L: TOWN OF GORHAM

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Gorham, are provided on a County-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Gorham can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Gorham, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Gorham planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the dam drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of Gorham:

**Table L-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of Gorham is estimated at 26 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 1,335 potentially vulnerable residents in the Town of Gorham based on age. In addition, an estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-6).

**Table L-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Gorham	1,068	267	211

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX L: TOWN OF GORHAM

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Gorham, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Gorham can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Gorham, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Gorham planning team members identified the following critical facilities (Table L-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Town of Gorham:

**Table L-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of Gorham is estimated at 26 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 1,335 potentially vulnerable residents in the Town of Gorham based on age. In addition, an estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-8).

**Table L-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Gorham	1,068	267	211

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.



## ANNEX L: TOWN OF GORHAM

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Gorham, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Gorham can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Gorham, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Gorham planning team members identified the following critical facilities (Table L-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of Gorham:

**Table L-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of Gorham is estimated at 26 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 1,335 potentially vulnerable residents in the Town of Gorham based on age. In addition, an estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-10).

**Table L-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Gorham	1,068	267	211

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

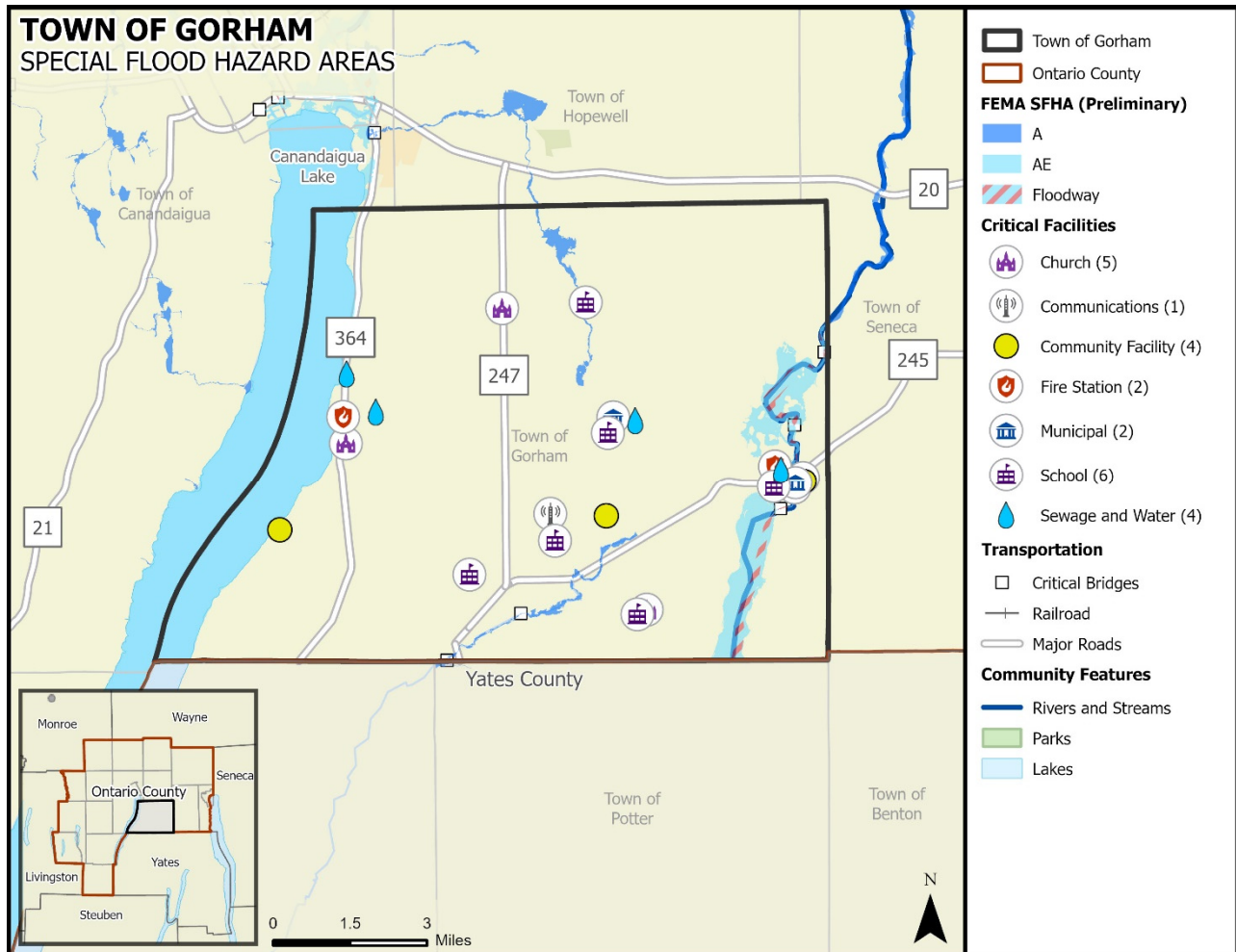
# ANNEX L: TOWN OF GORHAM

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Gorham, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Gorham, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure L-2.

Figure L-2. Estimated Flood Zones in the Town of Gorham<sup>8</sup>



### HISTORICAL OCCURRENCES

Table L-11 provides the historical occurrences of flood events for the Town of Gorham according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, four flood events were known to have impacted the Town of Gorham, based upon NCEI records. Flood events are often

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX L: TOWN OF GORHAM

reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table L-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Gorham	7/9/2010	0	0	\$20,378	\$0
	7/9/2010	0	0	\$20,378	\$0
	10/29/2021	0	0	\$0	\$0
	6/12/2023	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$40,756</b>	

Based on the list of historical flood events for the Town of Gorham, two of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Gorham can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Gorham planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table L-12 includes the critical facilities in the Town of Gorham located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in the flood hazard profile (Section 9).

**Table L-12. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Town of Gorham	Bridges (West River Bridge, East Swamp Flint Creek, Tileyard Road Flint Creek, Lake to Lake Road Flint Creek, Railroad Avenue West River)	Transportation	1%

Historic loss estimates due to flood are presented in Table L-13 below.

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX L: TOWN OF GORHAM

**Table L-13. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Gorham	4	\$40,756	\$1,482

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table L-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Gorham	211

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table L-15 depicts the level of impact for the Town of Gorham.

**Table L-15 Town of Gorham Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Gorham	Limited	The Town of Gorham could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Gorham currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Gorham has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Gorham as a high-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Gorham Zoning Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX L: TOWN OF GORHAM

- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table L-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table L-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Gorham	N/A	6/11/2020	Good Standing	4

### *REPETITIVE LOSS*

Table L-17 shows repetitive loss and severe repetitive loss properties for the Town of Gorham.

**Table L-17. Repetitive Loss and Severe Repetitive Loss Properties**

JURISDICTION	BUILDING TYPE	NUMBER OF LOSSES
Town of Gorham	2-4 Family	0
	Assumed Condo	0
	Non-Residential	0
	Other Residential	0
	Single Family*	2

## ANNEX L: TOWN OF GORHAM

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence shown across the planning area demonstrates that the Town of Gorham is vulnerable to hail events overall. However, no reported historical hail events impacted the Town of Gorham between January 1956 through August 2023 per the NCEI; events reported to NCEI and NOAA databases may not represent all hail events to have occurred during the past 67.5 years.

#### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Gorham can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Gorham planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table L-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 61 manufactured homes are located in the Town of Gorham (3 percent of total housing stock). In addition, 61 percent (approximately 1,305 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table L-19. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Gorham	1,305	61

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-20).

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**Table L-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Gorham	211

Overall, the total loss estimate of property and crops in the Town of Gorham is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Town of Gorham can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table L-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Gorham	\$0	\$0



## ANNEX L: TOWN OF GORHAM

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Gorham, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Gorham can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Gorham, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Gorham planning team members identified the following critical facilities (Table L-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of Gorham:

**Table L-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of Gorham is estimated at 26 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 1,335 potentially vulnerable residents in the Town of Gorham based on age. In addition, an estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-23).

**Table L-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Gorham	1,068	267	211

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX L: TOWN OF GORHAM

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of Gorham is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. There have been no reported landslide incidents in the Town of Gorham.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Gorham over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Gorham.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX L: TOWN OF GORHAM

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Town of Gorham from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Gorham is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of Gorham planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table L-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-25).

**Table L-25. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Gorham	211

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Gorham due to lightning are considered negligible.

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Table L-26. Potential Annualized Losses

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Gorham	\$0	\$0

## ANNEX L: TOWN OF GORHAM

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Gorham, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Gorham can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Gorham, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Gorham planning team members identified the following critical facilities (Table L-27) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of Gorham:

**Table L-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of Gorham is estimated at 26 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 1,335 potentially vulnerable residents in the Town of Gorham based on age. In addition, an estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-28).

**Table L-28. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Gorham	1,068	267	211

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX L: TOWN OF GORHAM

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, from January 1994 through August 2023, no tornado events are known to have impacted the Town of Gorham.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County Planning Area, the Town of Gorham can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Gorham planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table L-29. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 61 manufactured homes are located in the Town of Gorham (3 percent of total housing stock). In addition, 61 percent (approximately 1,305 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table L-30. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Gorham	1,305	61

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-31).

ANNEX L: TOWN OF GORHAM

**Table L-31. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Gorham	211

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the Town of Gorham would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table L-32. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Gorham	\$0	\$0



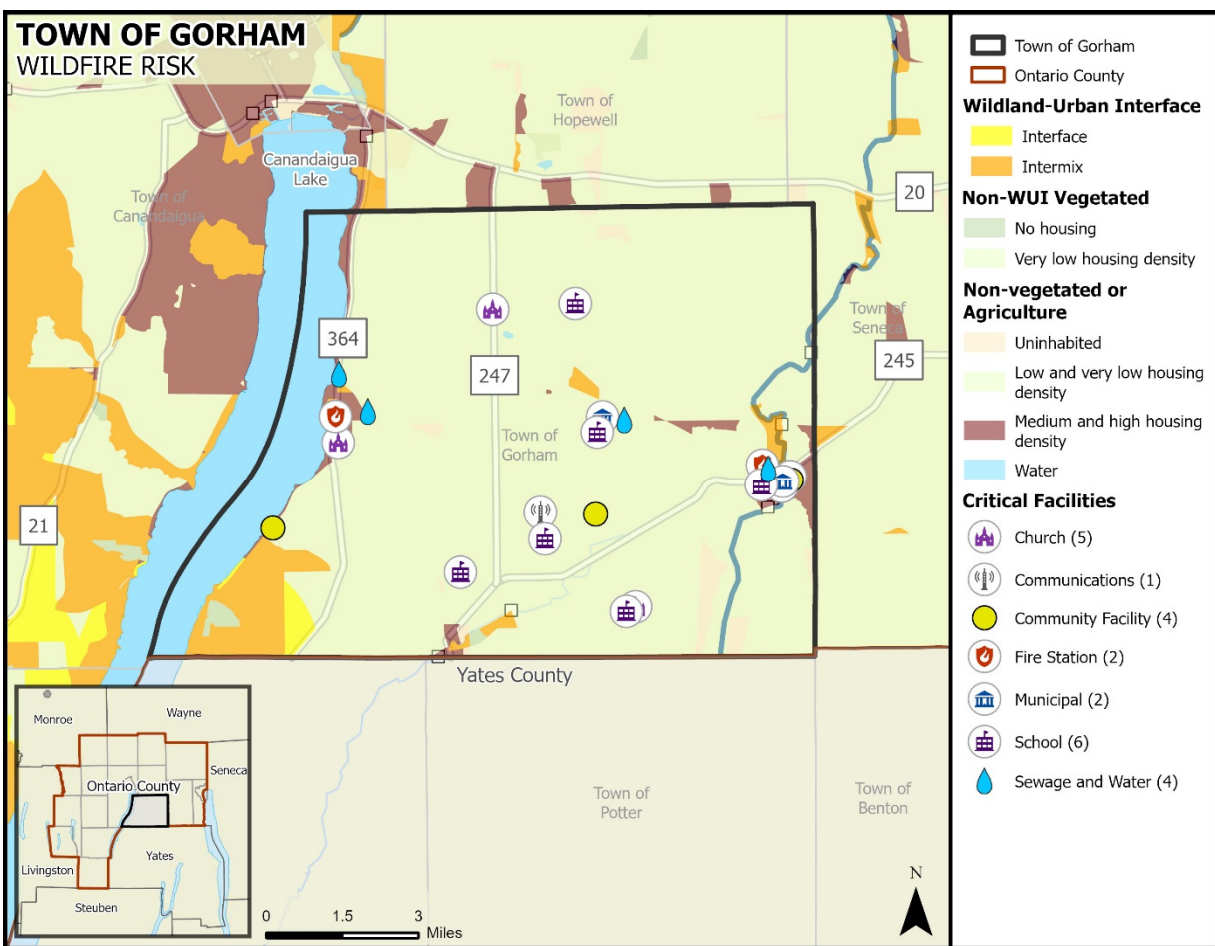
# ANNEX L: TOWN OF GORHAM

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure L-3). The Town of Gorham planning area is considered at low risk for wildfires with limited WUI areas.

Figure L-3. Town of Gorham Wildland Urban Interface Map<sup>11</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX L: TOWN OF GORHAM

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Gorham, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

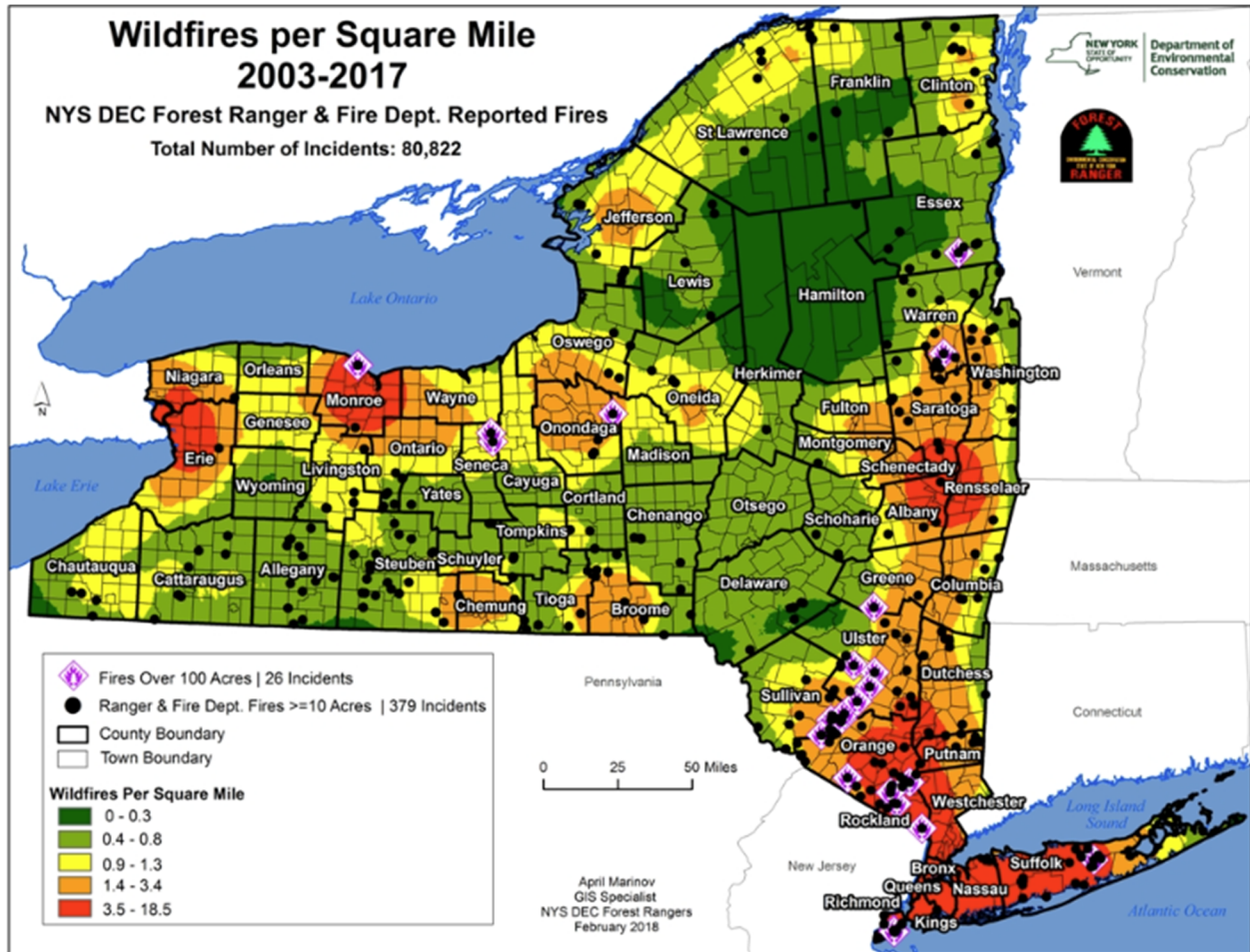
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure L-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX L: TOWN OF GORHAM

Figure L-4. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Gorham planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

ANNEX L: TOWN OF GORHAM

**Table L-33. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

For the Town of Gorham, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

# ANNEX L: TOWN OF GORHAM

## WIND

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Since 1956, 11 wind events are known to have occurred in the Town of Gorham. Table L-34 presents information on known historical events impacting the Town of Gorham.

**Table L-34. Historical Wind Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Gorham	7/15/1995	Unknown	0	0	\$29,132	\$0
	5/10/1996	Unknown	0	0	\$18,913	\$0
	7/3/1999	Unknown	0	0	\$17,767	\$0
	9/29/2005	50	0	0	\$22,347	\$0
	8/16/2007	50	0	0	\$7,122	\$0
	5/29/2012	50	0	0	\$10,310	\$10,310
	10/15/2017	50	0	0	\$12,007	\$0
	10/15/2017	50	0	0	\$12,007	\$0
	7/30/2019	50	0	0	\$1,154	\$0
	5/15/2020	50	0	0	\$2,310	\$0
	6/21/2021	50	0	0	\$2,180	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$135,249</b>	<b>\$10,310</b>

Based on the list of historical wind events for the Town of Gorham, three of the reported events have occurred since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Gorham can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Gorham planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX L: TOWN OF GORHAM

range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table L-35. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Gorham	5 Churches, 1 Communication Facility, 2 Fire Stations, 2 Municipal Buildings, 6 Schools, 4 Sewage and Water Facilities, 1 Bridge

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 61 manufactured homes are located in the Town of Gorham (3 percent of total housing stock). In addition, 61 percent (approximately 1,305 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table L-36. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Gorham	1,305	61

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Gorham’s population live below the poverty level (Table L-37).

**Table L-37. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Gorham	211

Impact of wind events experienced in the Town of Gorham would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$145,559 damages (in 2023 dollars) in the Town of Gorham due to wind events. The estimated average annual loss from a wind event is \$2,156.

**Table L-38. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Gorham	\$145,559	\$2,156

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## ANNEX L: TOWN OF GORHAM

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.



# ANNEX L: TOWN OF GORHAM

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TGorham-1: County Road 11 Area Flood Mitigation</b>	
<b>Name of Jurisdiction:</b>	Town of Gorham
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood hazard from stream and culvert blockages in steep slope areas near County Road 11.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Development of a plan for mitigation of potential flood hazards in steep slope areas in the southwest corner of the Town.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TGorham – 1: County Road 11 Area Flood Mitigation
<b>Name of Action or Project:</b>	TGorham – 1: County Road 11 Area Flood Mitigation
<b>Action or Project Description:</b>	<ol style="list-style-type: none"> <li>1) Conduct an inventory and analysis of steep slope (&gt;15%) areas in the southwest corner of the Town to assess existing conditions and identify where mitigation measures are needed.</li> <li>2) Develop an implementation strategy for mitigation that includes prioritization, schedule and funding.</li> <li>3) Implement as prescribed.</li> </ol>
<b>Summary of Evaluation Benefits (losses avoided):</b>	Addressing stream blockages as well as other issues in the subject area will minimize the risk of future flooding and resulting property and environmental damage. Costs will be determined after completion of the initial plan.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Gorham Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	Grants, Town Budget, In kind technical assistance (Ontario County Planning, SWCD)
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX L: TOWN OF GORHAM

<b>Previous Action Worksheet</b>	
<b>TGorham-2: Crystal Beach/Deep Run Drainage</b>	
<b>Name of Jurisdiction:</b>	Town of Gorham
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Lack of proper drainage in the area of Crystal Beach and Deep Run Cove.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Analysis of current grading and drainage improvements in the area of Crystal Beach and Deep Run. There is concern that inadequate drainage leaves this area vulnerable to flooding.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TGorham – 2: Crystal Beach/Deep Run Drainage
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	<ol style="list-style-type: none"> <li>1) Collect available information about flooding history in the subject area.</li> <li>2) Perform an inventory and analysis of the existing grading and drainage improvements.</li> <li>3) Assess potential for flooding</li> <li>4) Create a strategy that includes prioritized steps for mitigation and a plan for implementation</li> </ol>
<b>Summary of Evaluation Benefits (losses avoided):</b>	The goal is to create a logical plan to minimize flood risk in this densely developed area. Costs: TBD
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2019
<b>Potential Fund Sources:</b>	Grants, Town Budget, In kind technical assistance (Ontario County Planning, SWCD)
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX L: TOWN OF GORHAM

<b>Previous Action Worksheet</b>	
<b>TGorham-3: Manure Storage and Water Quality</b>	
<b>Name of Jurisdiction:</b>	Town of Gorham
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood susceptibility and potential water quality impacts from large scale manure storage facilities.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	<ol style="list-style-type: none"> <li>1) Inventory the location, size, and design of manure storage facilities in the Town.</li> <li>2) Assess potential risks to ground and surface waters during both typical and flood conditions.</li> <li>3) Establish a strategy for minimizing this risk.</li> </ol>
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TGorham - 3 Manure Storage and Water Quality
<b>Name of Action or Project:</b>	TGorham - 3 Manure Storage and Water Quality
<b>Action or Project Description:</b>	The Town needs to inventory the location, size, and design of manure storage facilities to assess and minimize the potential for surface and ground water impacts
<b>Summary of Evaluation Benefits (losses avoided):</b>	This project will enable the Town to make informed decisions about how to minimize the potential for negative water quality impacts from manure storage facilities. Cost: TBD
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Gorham Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	Grants, Town Budget, In kind technical assistance (Ontario County Planning, SWCD)
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX L: TOWN OF GORHAM

## NEW MITIGATION ACTIONS

TOWN OF GORHAM PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Flood	County Road 11 Area Flood Mitigation: Flood hazard from stream and culvert blockages in steep slope areas near County Road 11. Assessment of the road and drainage system required. The hydraulic capacity of this structure may not comply with commonly accepted standards. Floodwaters can cause debris to back up at the bridge, exacerbating flooding, and causing scour and erosion to embankments at the culvert site. This project protects the community and reduces risk of flooding.	Conduct an inventory and analysis of steep slope (>15%) areas in the southwest corner of the Town to assess existing conditions and identify where mitigation measures are needed. Develop an implementation strategy for mitigation that includes prioritization, schedule and funding and implement recommended improvements.	Yes	Further review required	24-36 months	Town Board with assistance from Ontario County Planning Department and SWCD	\$100,000 - \$500,000	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function; reduce emergency response required during flood events.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
2	5.4	Flood	Crystal Beach/Deep Run Drainage: Lack of proper drainage in the area of Crystal Beach and Deep Run Cove. This project protects the community and reduces risk of flooding.	Analysis of current grading and drainage improvements in the area of Crystal Beach and Deep Run. Create a strategy that includes prioritized steps for mitigation and a plan for implementation.	No	Further review required	24-36 months	Town Board with assistance from Ontario County Planning Department and SWCD	\$500,000 - \$1,000,000	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function; reduce emergency response required during flood events.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
3	2.3	Drought, Water Supply Contamination	Manure Storage and Water Quality: Flood susceptibility and potential water quality impacts from large scale manure storage facilities.	Inventory the location, size, and design of manure storage facilities to assess and minimize the potential for surface	No	Further review required	24-36 months	Town Board with assistance from Ontario County Planning Department and SWCD	\$500,000	Reduce risk of water contamination. Reduce the risk of damages and risk of injuries or fatalities.	Local Department Budget; HMGP, BRIC,	M	Safety/Security, Food/Water/ Shelter

# ANNEX L: TOWN OF GORHAM

TOWN OF GORHAM PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				and ground water impacts. Develop of plan to protect infrastructure and reduce potential contamination.							CDBG, PA 406 (when applicable) local bonds		
4	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
5	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX L: TOWN OF GORHAM

TOWN OF GORHAM PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
6	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX L: TOWN OF GORHAM

## TOWN OF GORHAM PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
8	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication



# ANNEX L: TOWN OF GORHAM

TOWN OF GORHAM PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
11	3.3	Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
12	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX L: TOWN OF GORHAM

TOWN OF GORHAM PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
13	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
15	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	4.2	Flood	Feasibility Study: Existing bridges in the Town of Gorham need to be evaluated for flood risk. Floodwaters can cause the debris to back up at the bridge, exacerbating flooding, damaging the bridge, and causing scour and erosion to	Town of Gorham will complete a feasibility study for the following bridges located in the Town to identify the current flood risk, determine if mitigation is needed, assess	Yes	Further review required	18 months	Town Board and Public Works	\$2,500,000	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce emergency response and improve egress, and improve egress, reduce loss of function.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable)	H	Safety/Security

# ANNEX L: TOWN OF GORHAM

TOWN OF GORHAM PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			embankments at the bridge site. This project protects communities and reduces risk of flooding.	alternatives, and implement feasible alternative for flood reduction, protecting the infrastructure to the 0.2% flood level: Blodgett Rd-West River Bridge; East Swamp-Flint Creek; Tileyard Rd-Flint Creek; Lake to Lake Rd-Flint Creek; Railroad Ave-West River							local bonds		

# ANNEX L: TOWN OF GORHAM

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Gorham
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	X
Drought Contingency Plan	
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	X
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	X
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	X
Open Space Plan	X
Stormwater Management Plan	X
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX L: TOWN OF GORHAM

COMMUNITY CAPABILITY CHECKLIST	Town of Gorham
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX L: TOWN OF GORHAM

COMMUNITY CAPABILITY CHECKLIST	Town of Gorham
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	X
Public Education/ Awareness Programs	X
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	X
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	X
Floodplain Administrator	X
GIS Specialist	X
Personnel with Hazard Knowledge	X
Planners	X
Public Information Official	X
Resource Development/ Grant Writer	X



Ontario  
County  
NEW YORK



ANNEX M  
TOWN OF HOPEWELL



# ANNEX M: TOWN OF HOPEWELL

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# ANNEX M: TOWN OF HOPEWELL

## JURISDICTION PROFILE

### OVERVIEW

The Town of Hopewell is in Ontario County, New York with a population of over 3,900. The town is in the north central part of the county, east of the City of Canandaigua. According to the United States Census Bureau, the town has a total area of 35.7 square miles, of which 35.6 square miles is land and 0.04 square miles is water. New York State Route 21 intersects New York State Route 488 in Chapin. The NY 5/U.S. 20 concurrency runs through the southern part of the town. The Town of Hopewell is near the northeastern end of Canandaigua Lake, one of the finger lakes. Figure M-1 shows the general location of the Town of Hopewell.

## TOWN OF HOPEWELL CONTACT INFORMATION

Name: Bill Namestnik

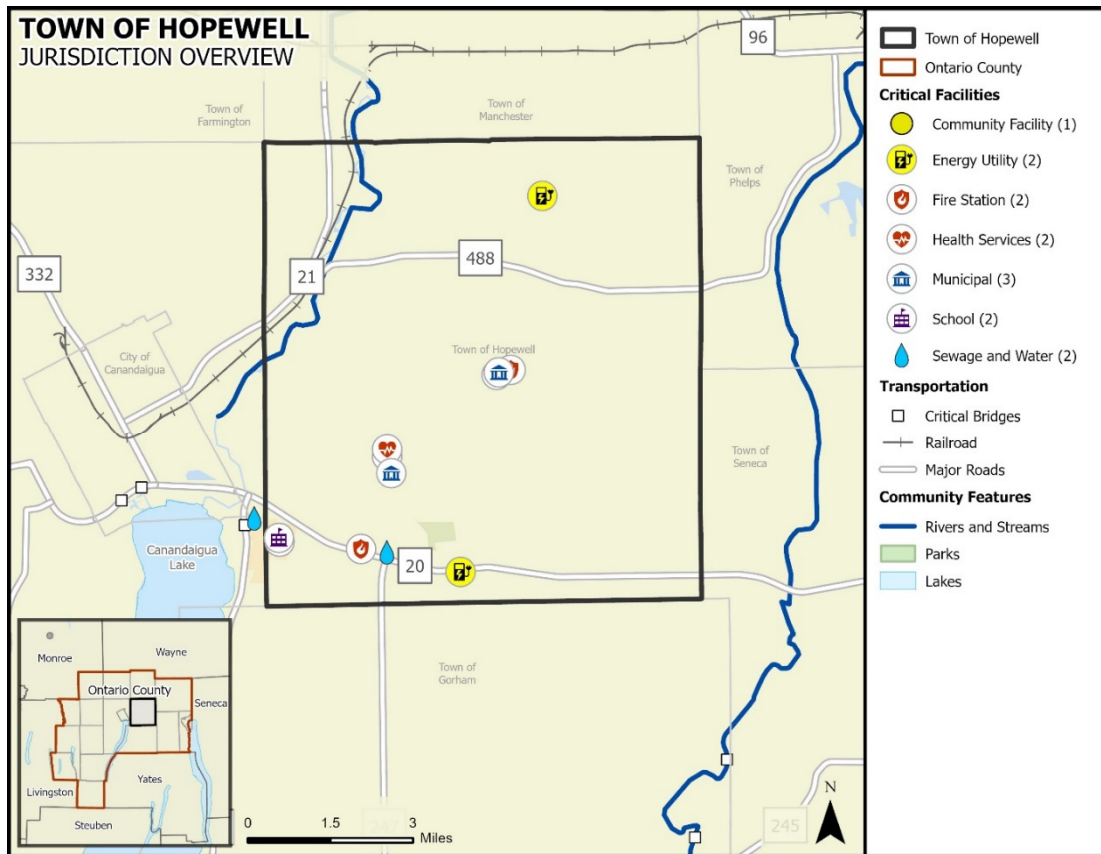
Title: Town Supervisor

Phone: 585-394-0036, ext. 1

Address: 2716 County Road 47,  
Canandaigua, NY 14424

Email: [supervisor@townofhopewell.org](mailto:supervisor@townofhopewell.org)

Figure M-1. Town of Hopewell Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

# ANNEX M: TOWN OF HOPEWELL

## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Hopewell has an official population of 3,931 residents, a 4.9 percent increase since the 2010 census. Table M-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Hopewell using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table M-1. Population Distribution for the Town of Hopewell**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Hopewell	3,747	3,834	2.3%	76	820	318

## POPULATION GROWTH

The official 2020 Town of Hopewell population is 3,931. Overall, the Town of Hopewell experienced an increase in population between 1990 and 2020 of 30.3 percent, or an increase by 915 residents. Between 2010 and 2020, the Town of Hopewell experienced a population growth. Table M-2 provides historic change rates in the Town of Hopewell.

**Table M-2. Population Growth for the Town of Hopewell, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Hopewell	3,016	3,346	3,747	3,931	915	30.3%	184	4.9%

## FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Hopewell might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX M: TOWN OF HOPEWELL

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table M-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

**Table M-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table M-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table M-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Hopewell	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Hopewell’s website. A total of 4 surveys were completed for the Town of Hopewell.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX M: TOWN OF HOPEWELL

Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Hopewell's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX M: TOWN OF HOPEWELL

### HAZARD PROFILES

#### DAM FAILURE

The Town of Hopewell is not profiling dam failure. The Town of Hopewell does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX M: TOWN OF HOPEWELL

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Hopewell, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Hopewell can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Hopewell, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Hopewell planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of Hopewell:

**Table M-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

The population over 65 in the Town of Hopewell is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 896 potentially vulnerable residents in the Town of Hopewell based on age. In addition, an estimated 8 percent of the Town of Hopewell’s population live below the poverty level (Table M-6).

**Table M-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	820	76	318

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.



# ANNEX M: TOWN OF HOPEWELL

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Hopewell, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Hopewell can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Hopewell, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Hopewell planning team members identified the following critical facilities (Table M-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Town of Hopewell:

**Table M-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

The population over 65 in the Town of Hopewell is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 896 potentially vulnerable residents in the Town of Hopewell based on age. In addition, an estimated 8 percent of the Town of Hopewell’s population live below the poverty level (Table M-8).

**Table M-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	820	76	318

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX M: TOWN OF HOPEWELL

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Hopewell, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Hopewell can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Hopewell, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Hopewell planning team members identified the following critical facilities (Table M-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of Hopewell:

**Table M-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

The population over 65 in the Town of Hopewell is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 896 potentially vulnerable residents in the Town of Hopewell based on age. In addition, an estimated 8 percent of the Town of Hopewell’s population live below the poverty level (Table M-10).

**Table M-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	820	76	318

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

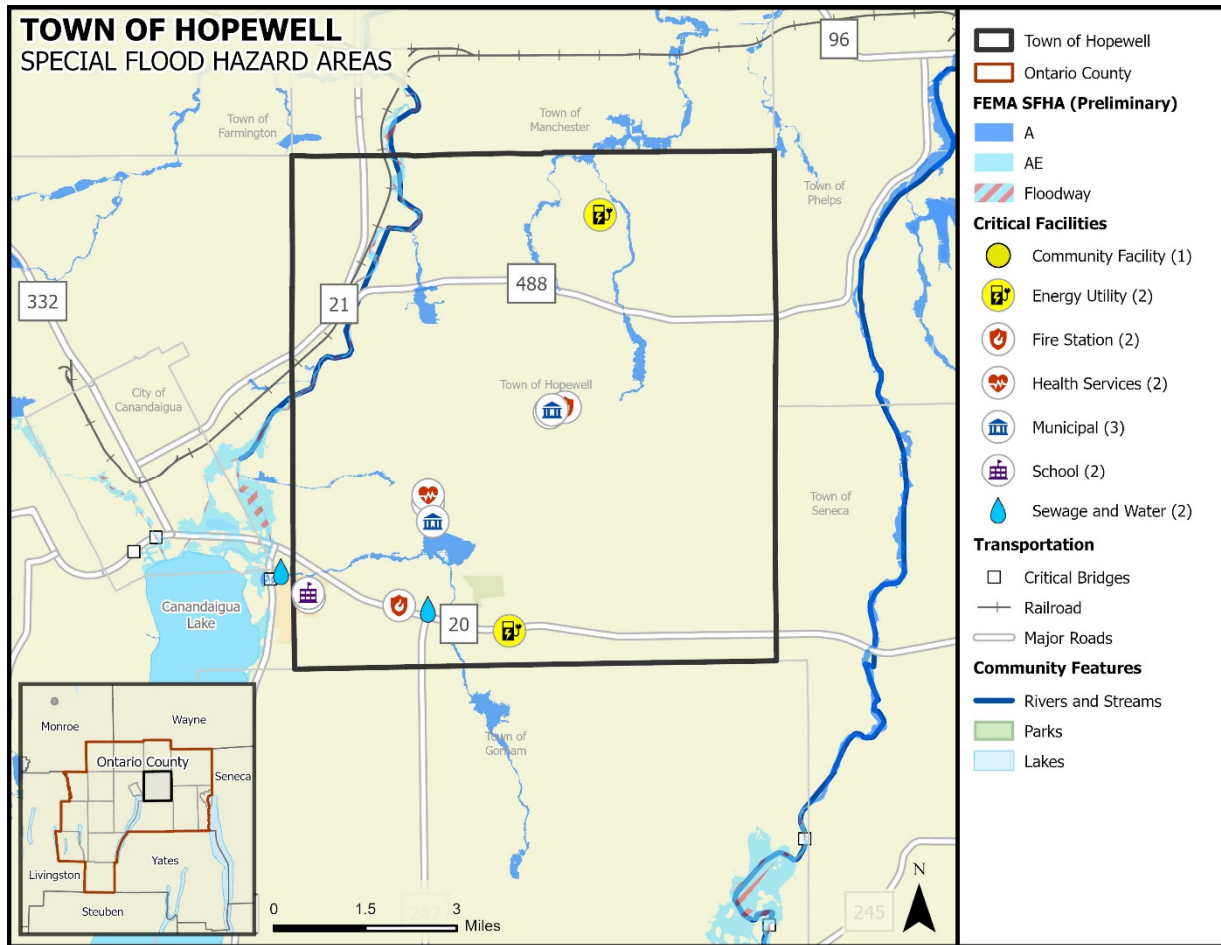
# ANNEX M: TOWN OF HOPEWELL

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Hopewell, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Hopewell, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure M-2.

**Figure M-2. Estimated Flood Zones in the Town of Hopewell<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table M-11 provides the historical occurrences of flood events for the Town of Hopewell according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, one flood event was known to have impacted the Town of Hopewell, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX M: TOWN OF HOPEWELL

**Table M-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Hopewell	7/13/2017	0	0	\$60,495	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$60,495</b>	

Based on the list of historical flood events for the Town of Hopewell, no event has been reported since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Hopewell can expect to experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Hopewell planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. No critical facilities are in the floodplain in the Town of Hopewell.

Historic loss estimates due to flood are presented in Table M-12 below.

**Table M-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Hopewell	1	\$60,495	\$2,200

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Hopewell’s population live below the poverty level (Table M-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table M-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	318

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table M-14 depicts the level of impact for the Town of Hopewell.

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX M: TOWN OF HOPEWELL

**Table M-14 Town of Hopewell Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Hopewell	Limited	The Town of Hopewell could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Hopewell currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Hopewell has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Hopewell as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Hopewell Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table M-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table M-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Hopewell	10/4/2018	10/7/2005	Good Standing	0

### *REPETITIVE LOSS*

The Town of Hopewell currently has no repetitive loss or severe repetitive loss properties.

# ANNEX M: TOWN OF HOPEWELL

## HAIL

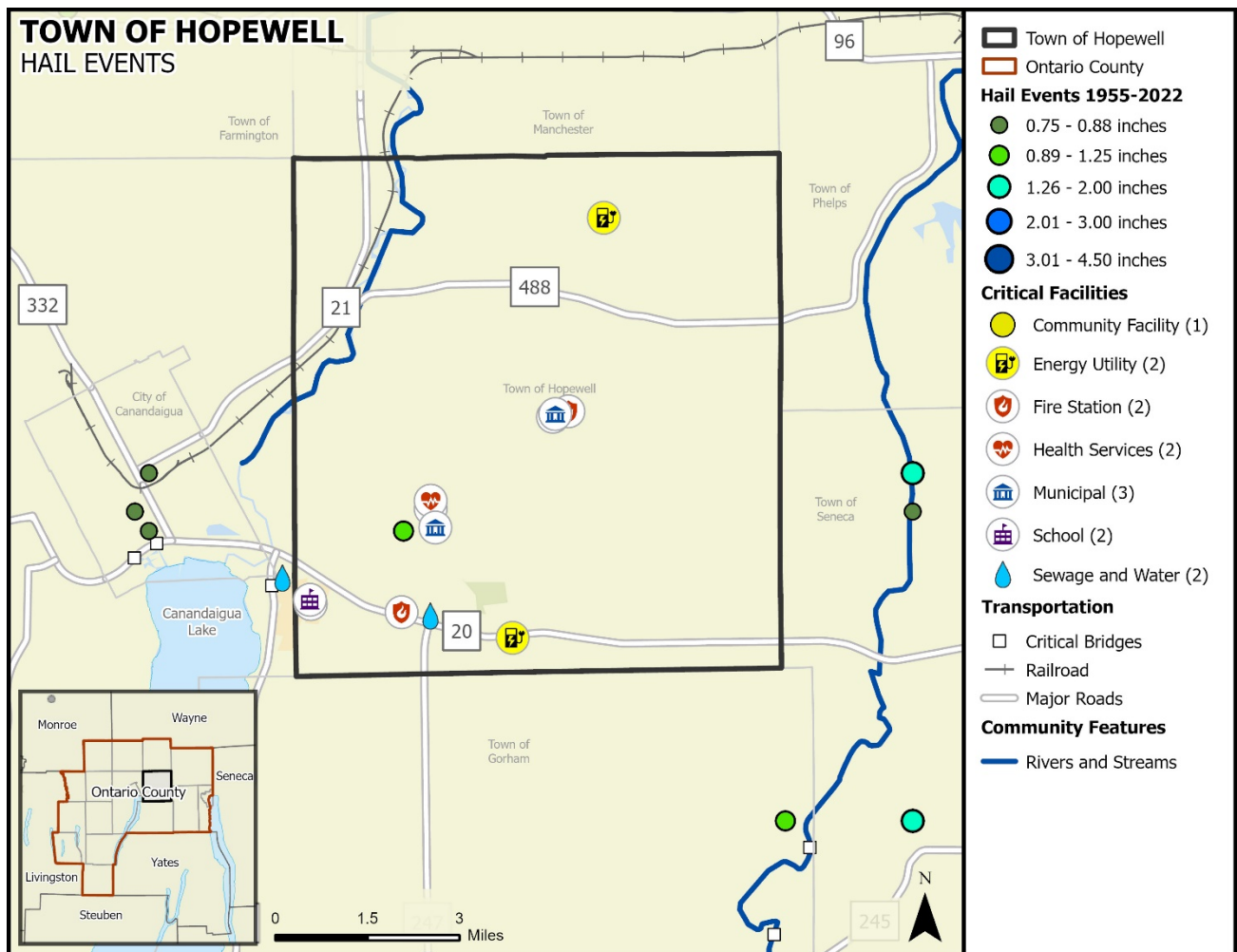
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure M-3 demonstrates that the Town of Hopewell is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table M-16. A total of two reported historical hail events impacted the Town of Hopewell between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of Hopewell with latitude and longitude available were plotted (Figure M-3).

Figure M-3. Historical Hail Events, 1956-2023<sup>11</sup>



<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)



## ANNEX M: TOWN OF HOPEWELL

**Table M-16. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Hopewell	5/21/2013	0.75	0	0	\$0	\$0
	5/14/2017	1	0	0	\$2,420	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$2,420</b>	<b>\$0</b>

Based on the list of historical hail events for the Town of Hopewell, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Hopewell can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Hopewell planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table M-17. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 341 (22 percent of total housing stock) manufactured homes located in the Town of Hopewell. In addition, 48 percent (approximately 760 structures) of the housing structures in the Town of Hopewell were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table M-18. Structures at Greater Risk**

JURISDICTION	SFRR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Hopewell	760	341

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.



## ANNEX M: TOWN OF HOPEWELL

stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Hopewell's population live below the poverty level (Table M-19).

**Table M-19. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	318

Overall, the total loss estimate of property and crops in the Town of Hopewell is \$2,420 with an average annualized loss of \$36. Based on historic loss and damages, the impact of hail damages on the Town of Hopewell can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table M-20. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Hopewell	\$2,420	\$36

# ANNEX M: TOWN OF HOPEWELL

## ICE STORM

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Hopewell, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Town of Hopewell can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Town of Hopewell, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Hopewell planning team members identified the following critical facilities (Table M-21) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of Hopewell:

**Table M-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

The population over 65 in the Town of Hopewell is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 896 potentially vulnerable residents in the Town of Hopewell based on age. In addition, an estimated 8 percent of the Town of Hopewell’s population live below the poverty level (Table M-22).

**Table M-22. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	820	76	318

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX M: TOWN OF HOPEWELL

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of Hopewell is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. There have been no reported incidents of landslides in the Town of Hopewell.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Hopewell over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Hopewell.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX M: TOWN OF HOPEWELL

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There have been no recorded lightning events in the Town of Hopewell from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Hopewell is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Town of Hopewell planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in the lightning hazard profile (Section 13).

**Table M-23. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Hopewell's population live below the poverty level (Table M-24).

**Table M-24. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	318

With no historical lightning events or losses, the impacts of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Hopewell due to lightning are considered negligible.

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**Table M-25. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Hopewell	\$0	\$0

## ANNEX M: TOWN OF HOPEWELL

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Hopewell, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Hopewell can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Hopewell, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Hopewell planning team members identified the following critical facilities (Table M-26) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of Hopewell:

**Table M-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

The population over 65 in the Town of Hopewell is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 896 potentially vulnerable residents in the Town of Hopewell based on age. In addition, an estimated 8 percent of the Town of Hopewell’s population live below the poverty level (Table M-27).

**Table M-27. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	820	76	318

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX M: TOWN OF HOPEWELL

### TORNADO

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, from January 1994 through August 2023, no tornado events are known to have impacted the Town of Hopewell.

#### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Hopewell can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

#### VULNERABILITY AND IMPACT

The Town of Hopewell planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table M-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 341 (22 percent of total housing stock) manufactured homes located in the Town of Hopewell. In addition, 48 percent (approximately 760 structures) of the housing structures in the Town of Hopewell were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table M-29. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Hopewell	1,574	341

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a



## ANNEX M: TOWN OF HOPEWELL

long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Hopewell’s population live below the poverty level (Table M-30).

**Table M-30. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	318

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the Town of Hopewell would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities, and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table M-31. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Hopewell	\$0	\$0

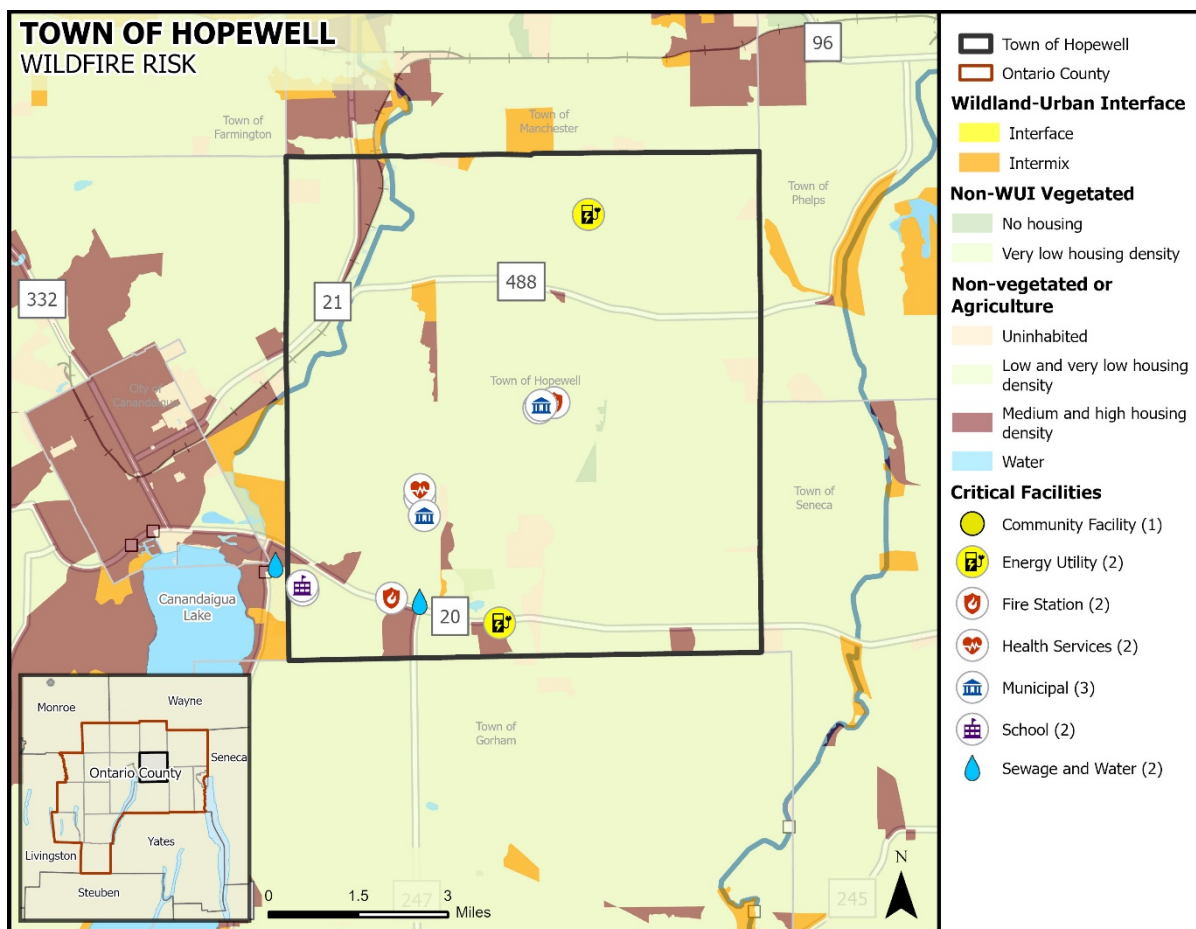
# ANNEX M: TOWN OF HOPEWELL

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure M-4). The Town of Hopewell planning area is considered at low risk for wildfires with limited WUI areas.

Figure M-4. Town of Hopewell Wildland Urban Interface Map<sup>13</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>13</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX M: TOWN OF HOPEWELL

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Hopewell, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

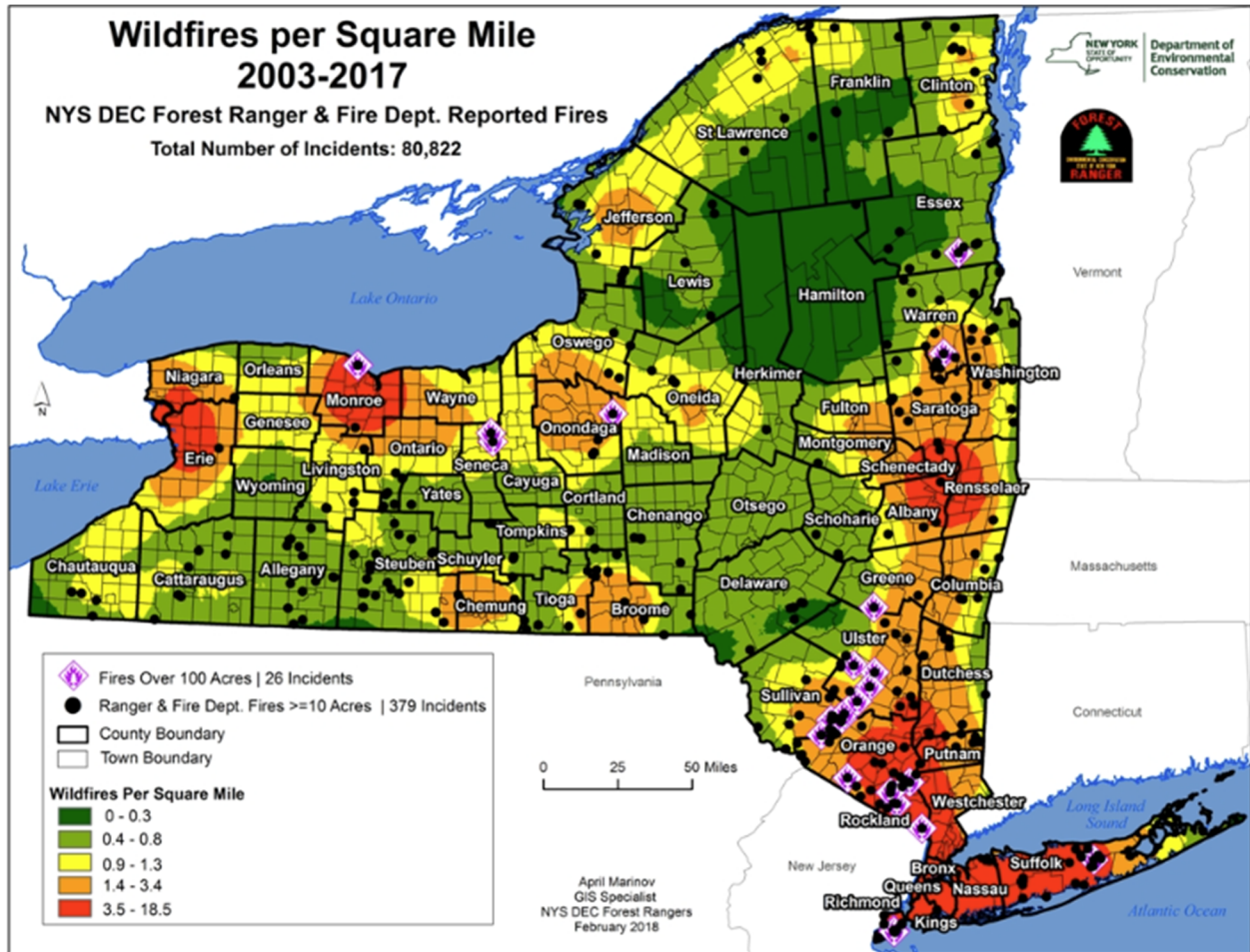
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure M-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX M: TOWN OF HOPEWELL

Figure M-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Hopewell planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

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**Table M-32. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

For the Town of Hopewell, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX M: TOWN OF HOPEWELL

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, two wind events are known to have occurred in the Town of Hopewell. Table M-33 presents information on known historical events impacting the Town of Hopewell.

**Table M-33. Historical Wind Events, 1956-2023<sup>14</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Hopewell	9/8/2012	50	0	0	\$12,799	\$0
	7/14/2014	52	0	0	\$18,647	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$31,446</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of Hopewell, none of the reported events have occurred since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are typically reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Hopewell can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Hopewell planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table M-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Hopewell	1 Community Facility, 2 Energy Utility Facilities, 1 Fire Station, 2 Health Service Facilities, 3 Municipal Buildings, 1 Residential Community Facility, 2 Schools, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 341 (22 percent of total housing stock) manufactured homes located in the Town of Hopewell. In addition, 48 percent (approximately 760 structures) of the housing structures in the Town of Hopewell were built before 1980. These structures would typically be built to lower or less

<sup>14</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.



## ANNEX M: TOWN OF HOPEWELL

stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table M-35. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Hopewell	760	341

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 8 percent of the Town of Hopewell's population live below the poverty level (Table M-36).

**Table M-36. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Hopewell	318

Impact of wind events experienced in the Town of Hopewell would be considered "Limited," with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$31,446 damages (in 2023 dollars) in the Town of Hopewell due to wind events. The estimated average annual loss from a wind event is \$466.

**Table M-37. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Hopewell	\$31,446	\$466

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.



# ANNEX M: TOWN OF HOPEWELL

## PREVIOUS MITIGATION ACTIONS

Previous Action Worksheet TH-1: Ditch Clearing	
<b>Name of Jurisdiction:</b>	Town of Hopewell
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
Risk / Vulnerability	
<b>Problem being Mitigated:</b>	Stormwater management concerns as well as sediment and erosion control - tree trimming; review and update Sediment and Erosion Control Plan periodically.
Potential Actions/Projects (not being Implemented at this time)	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
Action or Project Intended for Implementation	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	TH-1
<b>Action or Project Description:</b>	Town Highway Department evaluates road ditches and right-aways for erosion and sediments. Also, trees and brush along town roads are evaluated to determine any obstructions.
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	Lessen Town liability for storm-related damage. Staff time.
Plan for Implementation	
<b>Responsible Organization:</b>	Town Highway Department
<b>Action/Project Priority:</b>	Clear road ditch by excavation, trim trees, mow roadsides
<b>Timeline for Completion:</b>	Completed annually when weather permits
<b>Potential Fund Sources:</b>	Annual Highway Budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Information not reflected in 2018 Plan
2024 Analysis	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

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<b>Previous Action Worksheet</b>	
<b>TH-2: Water Department Pump Station Generator</b>	
<b>Name of Jurisdiction:</b>	Town of Hopewell
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Electricity failure risk - review and update inventory of generators and needs.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TH-2: Hopewell Water Department Inventory and Purchase of Generators
<b>Name of Action or Project:</b>	TH-2: Hopewell Water Department Inventory and Purchase of Generators
<b>Action or Project Description:</b>	Purchase and installation of generator at Hopewell Water Department Pump Station to ensure continued operation and provide added resiliency to a 500yr flood event.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Continuity of Operations
<b>Estimated Cost:</b>	\$100,000
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Hopewell Water Department
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2018-19
<b>Potential Fund Sources:</b>	Water Department Budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	n/a
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

# ANNEX M: TOWN OF HOPEWELL

## NEW MITIGATION ACTIONS

TOWN OF HOPEWELL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	5.4	Flood	Flood Mitigation Improvements: FEMA has provided the Town of Hopewell with a list of 19 projects, 15 which are still in need of flood mitigation improvements to be implemented. Extreme rainfall events result in high stormwater flow rates, which result in the destabilization of stream channels (including streambanks), that causes erosion and deposition within these streams, as well as stream migration. The erosion of streambanks and migration of stream channels can jeopardize adjacent buildings, bridges, culverts, roadways, utilities, and other infrastructure. This project protects the community and reduces the risk of flooding.	Implement mitigation as noted in FEMA notification letter for remaining 15 site locations identified. 42.85902,-77.23077 42.8795,-77.23494 42.94424,-77.23527 42.93351,-77.24125 42.93184,-77.2459 42.88663,-77.17299 and 42.88657,-77.17602 3551 Lincoln Hill Road Smith Road from SR5-20 (42.87056,-77.22987) Smith Road 2741 to County Road 4 Smith Road 2525 to 2503 Stoddard Road 3982 Swamp Road 3724 to Freshour Road Freshour Road 2793 Freshour Road 2665 to 2576 Freshour road Pole #T13	No	Further review required	On-going	Town Board	Staff Time with the exception of specialized equipment	Reduce risk of flood damages through improved drainage capacity; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget; if in need of specialized equipment, then we would utilize Ontario County Bid Book or State Bid	H	Safety/Security
2	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, Utility Failure	Generator at Town Hall: During hazard events, the Town Hall serves as the Emergency Operations Center and a place for residents to go if needed. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Acquire and install generators with hard wired quick connections at Town Hall.	Yes	Further review required	24 months	Town Board	\$25,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Fuel)

# ANNEX M: TOWN OF HOPEWELL

TOWN OF HOPEWELL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	4.2	Terrorism	Fencing for water critical infrastructure: Town of Hopewell has protection around critical infrastructure.	Install fencing around water tanks and valve houses for security.	Yes	Further review required	36-48 months	Town Board, Department of Energy and Homeland Security	\$75,000	Ensures continuity of critical services. Reduces damage to infrastructures. Reduce risk of chemical/biological poisoning to water supply.	Local Department Budget	M	Safety/Security, Food/Water/ Shelter
4	2.3	Terrorism	Develop a plan for critical infrastructure protection: Town of Hopewell has no plan in place in the event of a domestic attack on critical resources.	Develop a plan to protect critical natural gas and compressor stations from domestic attacks.	Yes	Further review required	36-48 months	Town Board, Department of Energy and Homeland Security	\$50,000	Ensures continuity of critical services. Reduces damage to infrastructures.	Local Department Budget	M	Safety/Security, Communication
5	4.2	Drought	Drill for additional aquifers: Town of Hopewell has limited alternative water sources in response to a drought event.	Determine if there is a deep aquifer within town-limited and drill to obtain access to additional water sources.	No	Further review required	36-48 months	Town Board	\$50,000	Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Food/Water/ Shelter
6	1.4	Flood, Hail, Ice Storms, Lightning, Snow Storm, Tornado, Wildfire, Wind	Ditch Clearing and Maintenance Program: Loose branches, brush and vegetation mix with drainage water and cause damming and plugged culverts. When this occurs, flood water escapes the existing drainage network, causing significant damage to public and private property. Recovery efforts are time consuming and labor intensive. This project protects the community and reduces risk of flooding.	Evaluate Road ditches, right-a-ways for erosion and sediments, trees and brush along town roads are evaluated to determine any obstructions and need to for removal/maintenance.	No	Further review required	Annually	Town Highway Department	Staff Time	Reduce damages to infrastructure; Ensure continuity of services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget; local bonds	M	Safety/Security

# ANNEX M: TOWN OF HOPEWELL

TOWN OF HOPEWELL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
7	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, Utility Failure	Transformer Connections for generator at Water Department Pump Station: The Town owns and maintains a stormwater pump station at Hopewell Water Department. Upgrade of the pumps and electrical system is to be assessed for the installation of an emergency generator. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Transformer connection to be wired to previously installed generator.	Yes	Further review required	12/2023	Town Water Department	Staff Time	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Fuel)
8	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX M: TOWN OF HOPEWELL

TOWN OF HOPEWELL PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
9	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
10	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX M: TOWN OF HOPEWELL

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*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
11	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
12	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
13	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to	No	N/A	36 months	Town Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication



# ANNEX M: TOWN OF HOPEWELL

TOWN OF HOPEWELL PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).									
14	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
15	3.3	Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication

# ANNEX M: TOWN OF HOPEWELL

TOWN OF HOPEWELL PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
16	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc. Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
17	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
18	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX M: TOWN OF HOPEWELL

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
19	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX M: TOWN OF HOPEWELL

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Hopewell
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX M: TOWN OF HOPEWELL

COMMUNITY CAPABILITY CHECKLIST	Town of Hopewell
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	X
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX M: TOWN OF HOPEWELL

COMMUNITY CAPABILITY CHECKLIST	Town of Hopewell
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	
Public Information Official	X
Resource Development/ Grant Writer	





**ANNEX N  
TOWN OF  
MANCHESTER**



ANNEX N: TOWN OF MANCHESTER

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# ANNEX N: TOWN OF MANCHESTER

## JURISDICTION PROFILE

### OVERVIEW

The Town of Manchester is in Ontario County, New York with a population of just over 9,404. According to the United State Census Bureau, the town has a total area of 37.8 square miles of which 37.82 square miles is land and 0.03 square miles of water. The Erie Canal, a part called the Wide Waters, briefly passes through the northeastern corner of the town, and the New York Thruway (Interstate 90) passes through the center. New York State Route 96 is a major highway that parallels the Thruway and intersects New York State Route 21 in Manchester village. Figure N-1 shows the general location of the Town of Manchester.

## TOWN OF MANCHESTER CONTACT INFORMATION

Name: David Phillips

Title: Town Supervisor

Phone: (585) 289-3010

Address: 1272 County Road 7, Clifton Springs, NY 14432

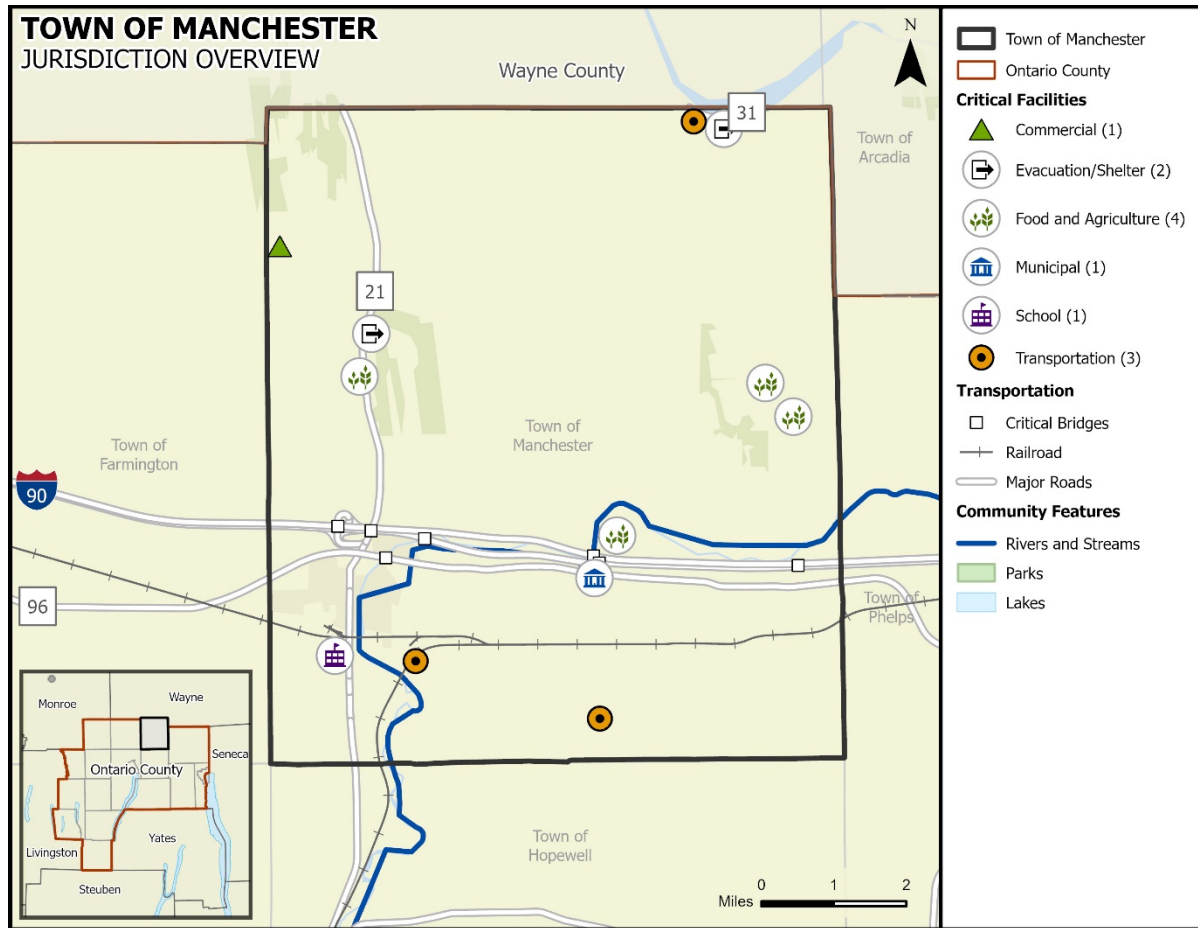
Email: [dave.phillips@manchesterny.org](mailto:dave.phillips@manchesterny.org)

## NOTE TO THE REVIEWER

It is noted that the Town of Manchester and the Village of Manchester are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

# ANNEX N: TOWN OF MANCHESTER

Figure N-1. Town of Manchester Planning Area<sup>1</sup>



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Manchester has an official population of 9,404 residents, a 0.6 percent increase since the 2010 census. Table N-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Manchester using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://demographics.texas.gov/Data/Decennial/2010/>, <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

# ANNEX N: TOWN OF MANCHESTER

**Table N-1. Population Distribution for the Town of Manchester**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Manchester	9,395	9,392	-0.03%	399	1,908	996

## POPULATION GROWTH

The official 2020 Town of Manchester population is 9,404. Overall, the Town of Manchester experienced an increase in population between 1990 and 2020 of 0.6 percent, or an increase by 53 residents. Between 2010 and 2020, the Town of Manchester experienced a population growth. Table N-2 provides historic change rates in the Town of Manchester.

**Table N-2. Population Growth for the Town of Manchester, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Manchester	9,351	9,258	9,395	9,404	53	0.6%	9	0.1%

## FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Manchester might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table N-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

# ANNEX N: TOWN OF MANCHESTER

**Table N-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

## PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table N-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table N-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Manchester	Town Supervisor

## PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Manchester’s website. A total of 5 surveys were completed for the Town of Manchester. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews

## ANNEX N: TOWN OF MANCHESTER

and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Manchester's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX N: TOWN OF MANCHESTER

### HAZARD PROFILES

#### DAM FAILURE

The Town of Manchester is not profiling dam failure. The Town of Manchester does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.



# ANNEX N: TOWN OF MANCHESTER

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Manchester can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Manchester, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Manchester planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in the drought hazard profile (Section 6). The following critical facilities would be vulnerable to drought events in the Town of Manchester:

**Table N-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

The population over 65 in the Town of Manchester is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,307 potentially vulnerable residents in the Town of Manchester based on age. In addition, an estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-6).

**Table N-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Manchester	1,908	399	996

Historic losses are reported on a county-wide basis. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX N: TOWN OF MANCHESTER

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Manchester can expect to experience an extreme cold event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Manchester, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Manchester planning team members identified the following critical facilities (Table N-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme cold hazard profile (Section 7). The following critical facilities would be vulnerable to extreme cold events in the Town of Manchester:

**Table N-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

The population over 65 in the Town of Manchester is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,307 potentially vulnerable residents in the Town of Manchester based on age. In addition, an estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-8).

**Table N-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Manchester	1,908	399	996

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX N: TOWN OF MANCHESTER

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Manchester can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Manchester, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Manchester planning team members identified the following critical facilities (Table N-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in the extreme heat hazard profile (Section 8). The following critical facilities would be vulnerable to extreme heat events in the Town of Manchester:

**Table N-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

The population over 65 in the Town of Manchester is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,307 potentially vulnerable residents in the Town of Manchester based on age. In addition, an estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-10).

**Table N-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Manchester	1,908	399	996

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

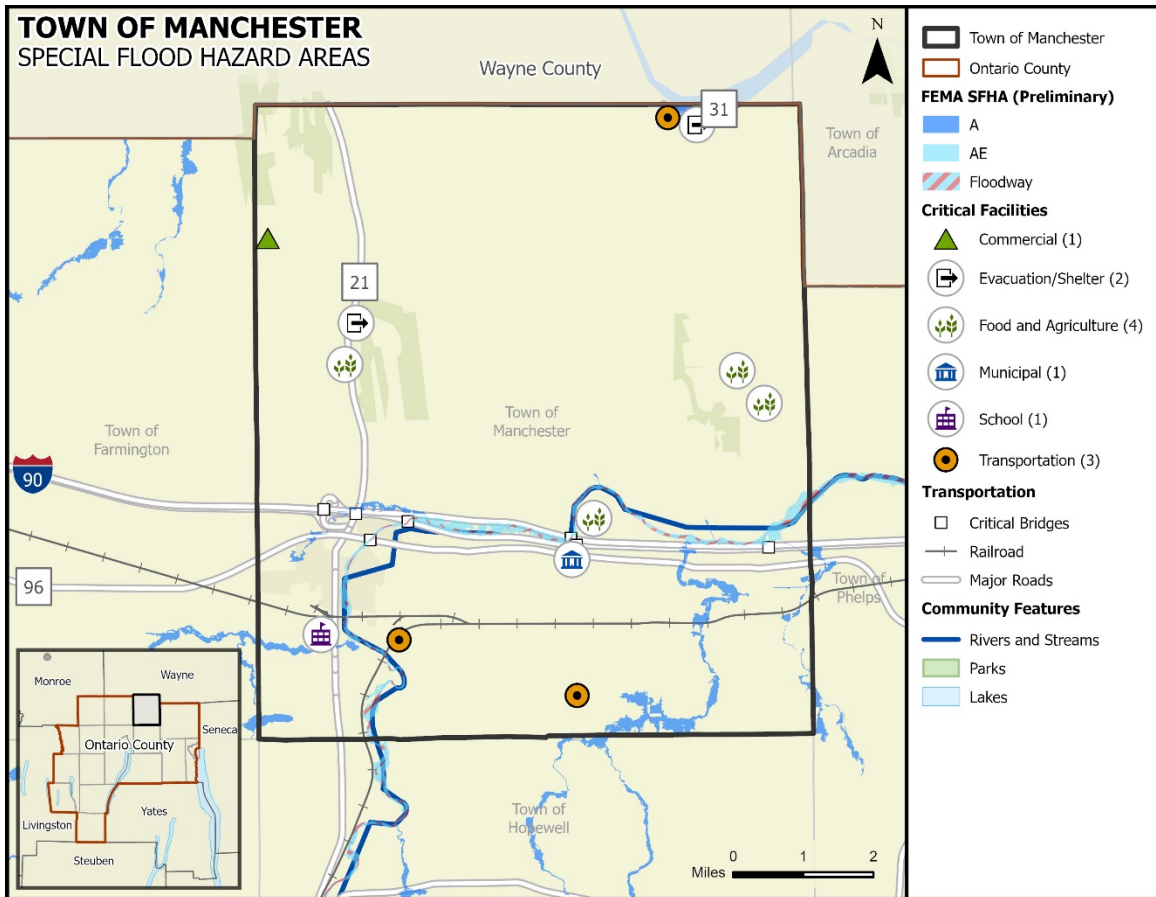
# ANNEX N: TOWN OF MANCHESTER

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Manchester, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Manchester, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure N-2.

**Figure N-2. Estimated Flood Zones in the Town of Manchester<sup>8</sup>**



### HISTORICAL OCCURRENCES

From January 1996 through to August 2023, no flood events were reported to have impacted the Town of Manchester, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

### PROBABILITY OF FUTURE EVENTS

While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Manchester can expect to

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX N: TOWN OF MANCHESTER

experience approximately one to two flood events every year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Manchester planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table N-11 includes the critical facilities in the Town of Manchester located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in the flood hazard profile (Section 9).

**Table N-11. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Town of Manchester	Bridge - NYS DOT- Bridge over outlet on Rt. 96 (JCT RTS 96 & 21)	Transportation	1%

Historic loss estimates due to flood are presented in Table N-12 below.

**Table N-12. Potential Annualized Losses, 1996-2023<sup>9</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Manchester	0	\$0	\$0

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table N-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Manchester	996

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table N-14 depicts the level of impact for the Town of Manchester.

**Table N-14 Town of Manchester Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Manchester	Limited	The Town of Manchester could have limited property damage with critical facilities typically shut down for 24 hours or less, and less than 10 percent of property would be destroyed or damaged.

<sup>9</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX N: TOWN OF MANCHESTER

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Manchester currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Manchester has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Manchester as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Manchester Zoning Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlined in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table N-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table N-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Manchester	N/A	N/A	Good Standing	1

### *REPETITIVE LOSS*

The Town of Manchester currently has no repetitive loss or severe repetitive loss properties.



# ANNEX N: TOWN OF MANCHESTER

## HAIL

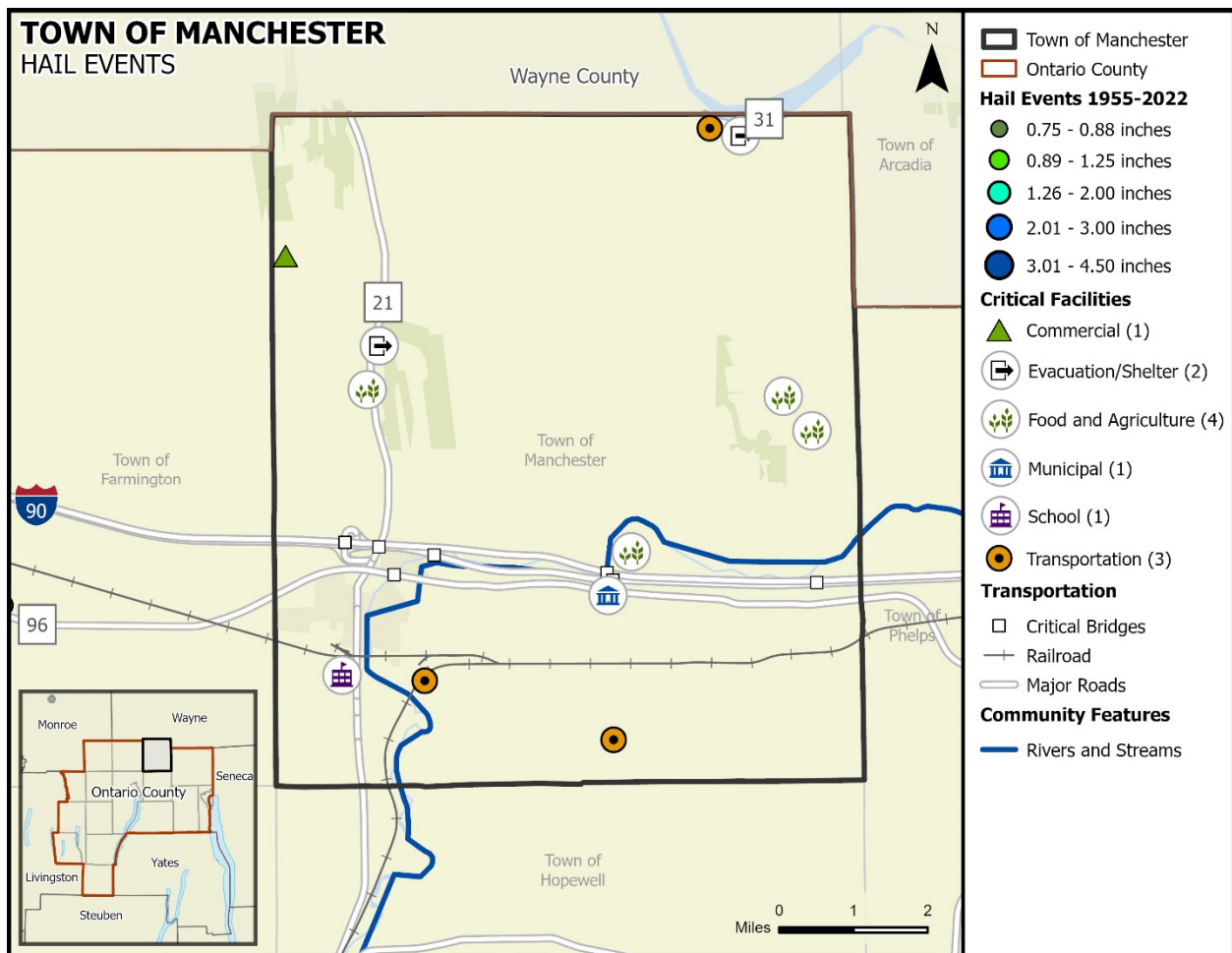
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure N-3 demonstrates that the Town of Manchester is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table N-16. A total of 2 reported historical hail events impacted the Town of Manchester between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of Manchester with latitude and longitude available were plotted (Figure N-3).

Figure N-3. Historical Hail Events, 1956-2023<sup>10</sup>



<sup>10</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)



# ANNEX N: TOWN OF MANCHESTER

**Table N-16. Historical Hail Events, 1956-2023<sup>11</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Manchester	6/16/2008	1.5	0	0	\$67,676	\$1,624,227
	6/16/2022	1.25	0	0	\$0	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$67,676</b>	<b>\$1,624,227</b>

Based on the list of historical hail events for the Town of Manchester, one reported event has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Manchester can expect a hail event approximately every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in the hail hazard profile (Section 10).

**Table N-17. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 1,063 manufactured homes are located in the Town of Manchester (26 percent of total housing stock). In addition, 66 percent (approximately 2,744 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table N-18. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Manchester	2,744	1,063

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>11</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX N: TOWN OF MANCHESTER

stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-19).

**Table N-19. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Manchester	996

Overall, the total loss estimate of property and crops in the Town of Manchester is \$1,691,903 with an average annualized loss of \$25,065. Based on historic loss and damages, the impact of hail damages on the Town of Manchester can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table N-20. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Manchester	\$1,691,903	\$25,065

## ANNEX N: TOWN OF MANCHESTER

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Manchester can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Manchester, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Manchester planning team members identified the following critical facilities (Table N-21) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the ice storm hazard profile (Section 11). The following critical facilities would be vulnerable to ice storm events in the Town of Manchester:

**Table N-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

The population over 65 in the Town of Manchester is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,307 potentially vulnerable residents in the Town of Manchester based on age. In addition, an estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-22).

**Table N-22. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Manchester	1,908	399	996

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX N: TOWN OF MANCHESTER

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of Manchester is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, and no known damages due to landslides. No landslide incident has been reported in the Town of Manchester.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Manchester over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Manchester.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslides and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX N: TOWN OF MANCHESTER

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Town of Manchester from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Manchester is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail the lightning hazard profile (Section 13).

**Table N-23. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-24).

**Table N-24. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Manchester	996

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for

# ANNEX N: TOWN OF MANCHESTER

24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Manchester due to lightning are considered negligible.

**Table N-25. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Manchester	\$0	\$0

## ANNEX N: TOWN OF MANCHESTER

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Manchester can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Manchester, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Manchester planning team members identified the following critical facilities (Table N-26) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in the snow storm hazard profile (Section 14). The following critical facilities would be vulnerable to snow storm events in the Town of Manchester:

**Table N-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

The population over 65 in the Town of Manchester is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 2,307 potentially vulnerable residents in the Town of Manchester based on age. In addition, an estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-27).

**Table N-27. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Manchester	1,908	399	996

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.



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## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, from January 1994 through August 2023, no tornado events are known to have impacted the Town of Manchester.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Manchester can expect to experience a tornado event once every five years. This frequency supports an “Occasional” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in the tornado hazard profile (Section 15).

**Table N-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 1,063 manufactured homes are located in the Town of Manchester (26 percent of total housing stock). In addition, 66 percent (approximately 2,744 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table N-29. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Manchester	2,744	1,063

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a

## ANNEX N: TOWN OF MANCHESTER

long-term stay away from home, and to rebuild or repair their homes. An estimated 11 percent of the Town of Manchester’s population live below the poverty level (Table N-30).

**Table N-30. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Manchester	996

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a tornado event on the Town of Manchester would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table N-31. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Manchester	\$0	\$0

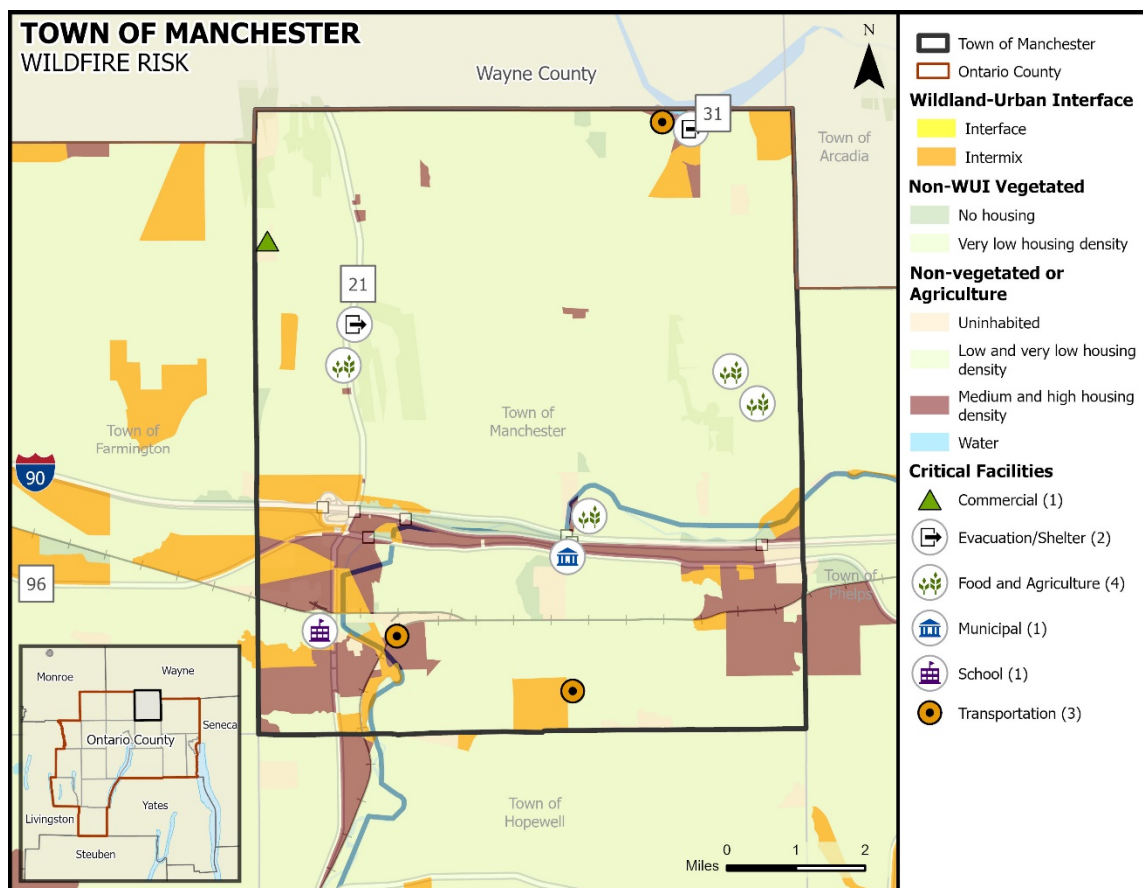
# ANNEX N: TOWN OF MANCHESTER

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure N-4). The Town of Manchester planning area is considered at low risk for wildfires with limited WUI areas.

Figure N-4. Town of Manchester Wildland Urban Interface Map<sup>12</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the

<sup>12</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX N: TOWN OF MANCHESTER

Town of Manchester, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

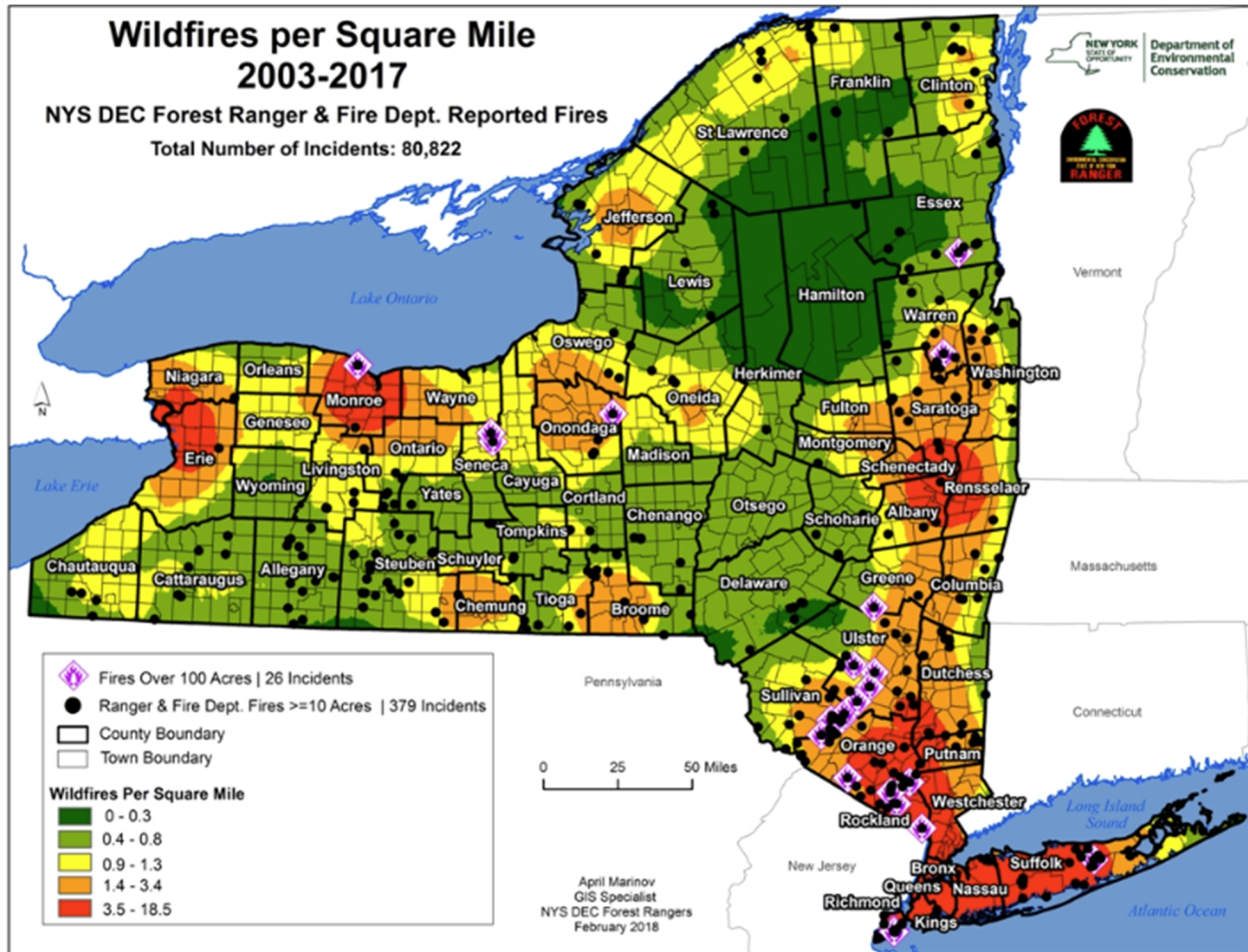
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure N-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of County have experienced incidents greater than 10 acres. The Ontario County planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX N: TOWN OF MANCHESTER

Figure N-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in the wildfire hazard profile (Section 16).

# ANNEX N: TOWN OF MANCHESTER

**Table N-32. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

For the Town of Manchester, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX N: TOWN OF MANCHESTER

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, 15 wind events are known to have occurred in the Town of Manchester. Table N-33 presents information on known historical events impacting the Town of Manchester.

**Table N-33. Historical Wind Events, 1956-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Manchester	6/8/2007	50	0	0	\$14,215	\$0
	5/21/2013	50	0	0	\$6,357	\$0
	5/13/2014	50	0	0	\$12,449	\$0
	6/10/2015	52	0	0	\$18,616	\$0
	6/23/2015	50	0	0	\$12,411	\$0
	6/18/2017	50	0	0	\$14,509	\$0
	9/4/2017	50	0	0	\$12,000	\$0
	9/4/2017	50	0	0	\$0	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	10/15/2017	52	0	0	\$0	\$0
	8/14/2018	52	0	0	\$2,349	\$0
	11/15/2020	55	0	0	\$0	\$0
	7/20/2023	51	0	0	\$2,056	\$0
	8/7/2023	51	0	0	\$10,000	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$124,174</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of Manchester, four of the reported events have occurred since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the

<sup>13</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.



## ANNEX N: TOWN OF MANCHESTER

Ontario County planning area, the Town of Manchester can expect to experience a wind event every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in the wind hazard profile (Section 17).

**Table N-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Manchester	1 Commercial Facility, 2 Evacuation Shelters, 4 Food and Agricultural Facilities, 1 Municipal Building, 1 School, 1 Sewage and Water Facility, 2 Transportation Facilities, 5 Bridges, 3 Transportation facilities (Roads and Routes)

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 1,063 manufactured homes are located in the Town of Manchester (26 percent of total housing stock). In addition, 66 percent (approximately 2,744 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table N-35. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Manchester	2,744	1,063

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 10.6 percent of the Town of Manchester’s population live below the poverty level (Table N-36).

**Table N-36. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Manchester	996

Impact of wind events experienced in the Town of Manchester would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$124,174 damages (in 2023 dollars) in the Town of Manchester due to wind events. The estimated average annual loss from a wind event is \$1,840.

**Table N-37. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Manchester	\$124,174	\$1,840

## ANNEX N: TOWN OF MANCHESTER

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX N: TOWN OF MANCHESTER

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TM-1: Water Street Bridge Repair/Replacement</b>	
<b>Name of Jurisdiction:</b>	Town of Manchester
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Bridge safety concern with water street bridge over Paddleford creek, needs a 20ft span replaced. This affects Red Jacket School and local emergency vehicles.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Needs a 20-foot span replaced.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TM-1: Bridge Repair/Replacement
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Replace 20-foot span of the Water Street Bridge.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Estimated Cost: \$750,000.00 Other Factors Considered: If the bridge is out of service this would affect Red Jacket School traffic, pedestrian traffic and emergency vehicles.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Manchester Highway Department
<b>Action/Project Priority:</b>	Not a high priority at this time
<b>Timeline for Completion:</b>	2022
<b>Potential Fund Sources:</b>	Grants
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Local budget process and chips monies
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Delete Action. This action pertains to the Village of Shortsville as they Village received grant funding for 2024-2025.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX N: TOWN OF MANCHESTER

<b>Previous Action Worksheet</b>	
<b>TM-2: Storm Water and Erosion Control Regulations</b>	
<b>Name of Jurisdiction:</b>	Town of Manchester
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Updated regulations are needed to address impacts from 500yr flood events as well as incremental impacts from smaller storm events.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	This will be a coordinated effort between the Town and Villages of Clifton Springs, Manchester, and Shortsville. Standards and regulations will apply to all development.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TM-2: Storm Water and Erosion Control Regulations
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Prepare and adopt land use regulations that address the management of storm water, stream corridors, groundwater, erosion, and sedimentation. Updated standards and regulations will properly manage storm water and erosion for the Town of Manchester and the 3 Villages.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Storm water and erosion control to minimize the impacts to water quality, critical facilities and infrastructure from large and small storm events.
<b>Estimated Cost:</b>	\$10,000 plus Town and County staff resources.
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Manchester Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	FEMA, Local Budget Process
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Local Law Amendment, Local Development Review, Town's adopted engineering standards for new development
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

# ANNEX N: TOWN OF MANCHESTER

## NEW MITIGATION ACTIONS

### TOWN OF MANCHESTER PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Generator for Town Hall and DPW Building: During power outages, the Town Hall and Public Works facility would be without lights, communications, and maintenance equipment/machinery. The operations are basically brought to a halt. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Acquire and install a permanent generator at both critical facilities: Town Hall and DPW building located at 1272 Co. Rd. 7	Yes	Further review required	24 months	Town Board and Public Works	\$1,000,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Fuel)
2	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damage.	Local Department Budget, Staff time	M	Communication

# ANNEX N: TOWN OF MANCHESTER

## TOWN OF MANCHESTER PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
4	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX N: TOWN OF MANCHESTER

## TOWN OF MANCHESTER PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
5	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
6	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX N: TOWN OF MANCHESTER

## TOWN OF MANCHESTER PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
7	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
8	3.1	Infestation	Invasive Species and Infestation: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, and Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX N: TOWN OF MANCHESTER

TOWN OF MANCHESTER PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
9	3.3	Drought, Flood, Hail, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county, and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damage to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
10	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
11	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX N: TOWN OF MANCHESTER

## TOWN OF MANCHESTER PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
13	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	4.1	Flood	Flood Zone Outreach Program: Recent developments have occurred near flood zones and some future development is anticipated near or within flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Once new FEMA maps are available, create a flood zone brochure for homeowners within flood zones to ensure they are in proper regulations.	No	N/A	12 months	Town Planning Department	Staff Time	Reduces risk of flood damages to high-risk structures and prevent future losses in high-risk flood hazard areas; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget, Staff time	M	Communication
15	4.2	Flood	Feasibility Study: Existing bridge in the Town of Manchester will need to be evaluated for flood risk. Floodwaters can cause debris	Town of Manchester will complete a feasibility study for the following bridge located in the Town to identify the	Yes	Further review required	18 months	Town Board and Public Works	\$2,500,000	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce emergency response	Local Department Budget; HMGP, BRIC,	H	Safety/Security

# ANNEX N: TOWN OF MANCHESTER

## TOWN OF MANCHESTER PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			to back up at the bridge, exacerbating flooding, damaging the bridge, and causing scour and erosion to embankments at the bridge site. This project protects communities and reduces risk of flooding.	current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the infrastructure to the 0.2% flood level: Bridge over outlet on Rt. 96 (JCT RTS 96 & 21)						and improve egress, reduce loss of function.	CDBG, PA 406 (when applicable) local bonds		

# ANNEX N: TOWN OF MANCHESTER

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Manchester
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	
Fire Codes	

## ANNEX N: TOWN OF MANCHESTER

COMMUNITY CAPABILITY CHECKLIST	Town of Manchester
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	
Regulation for Unsafe/Defective Structures	
Sediment and Erosion Control Measures	
Site Plan Review Requirements	X
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	
Subdivision Regulations	
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	
Zoning Ordinance/Land Use Restrictions	
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	
National Flood Insurance Program Participant	X

## ANNEX N: TOWN OF MANCHESTER

COMMUNITY CAPABILITY CHECKLIST	Town of Manchester
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	





**ANNEX 0**  
**VILLAGE OF**  
**MANCHESTER**

# ANNEX O: VILLAGE OF MANCHESTER

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## ANNEX O: VILLAGE OF MANCHESTER

### JURISDICTION PROFILE

#### OVERVIEW

The Village of Manchester is in Ontario County, New York with a population of just over 1,600. The village is within the Town of Manchester and is located in the southwest part of the town, north of Canandaigua. According to the United States Census Bureau, the village has a total of 1.2 square miles, all land. New York State Route 21 passes through the village and is located immediately south of the New York State Thruway and New York State Route 96. Figure O-1 shows the general location of the Village of Manchester.

#### VILLAGE OF MANCHESTER CONTACT INFORMATION

Name: Michael J. Buttaccio

Title: Mayor

Phone: (585) 289-4340

Address: 8 Clifton Street, Manchester, NY  
14504

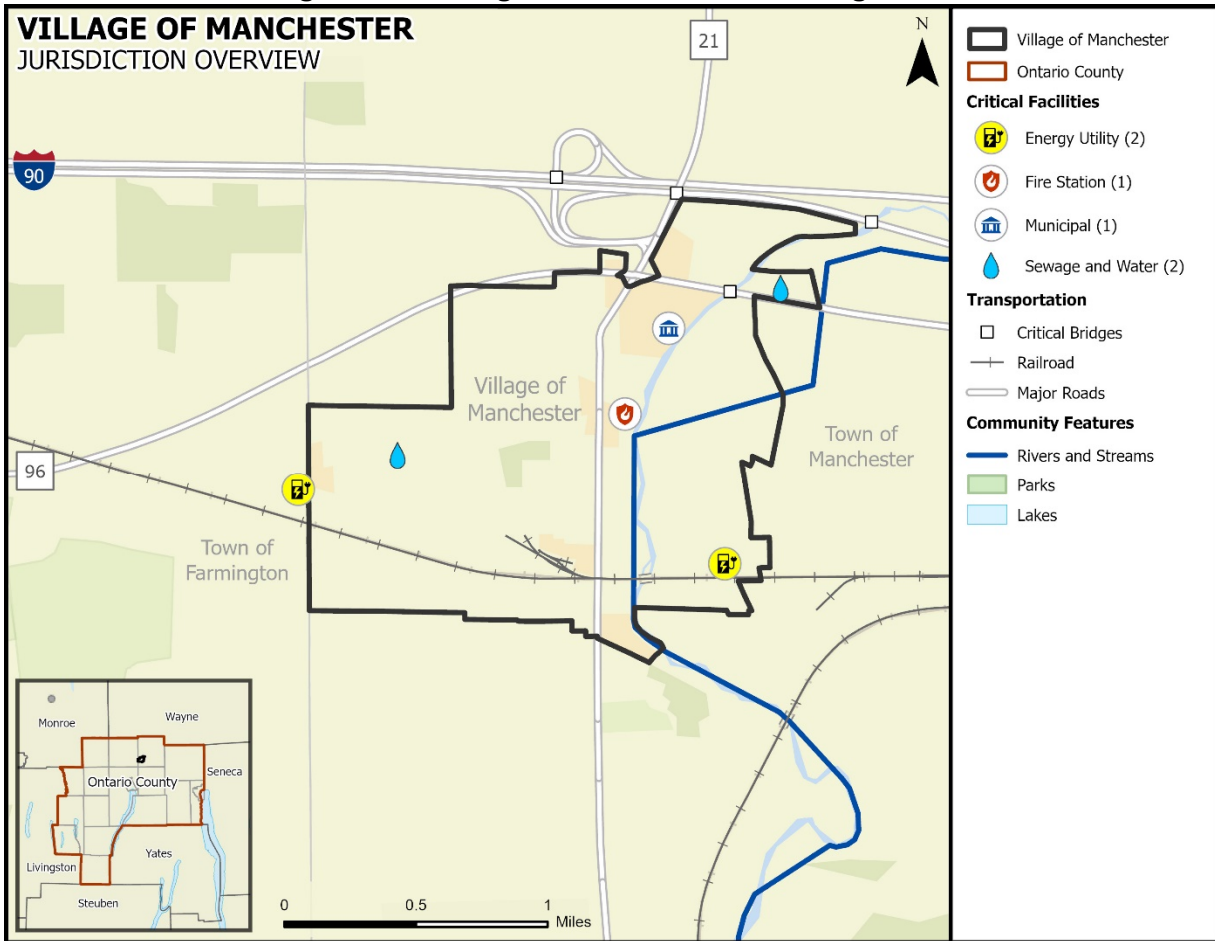
Email: [rjg@rochester.rr.com](mailto:rjg@rochester.rr.com)

#### NOTE TO THE REVIEWER

It is noted that the Village of Manchester and the Town of Manchester are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

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Figure O-1. Village of Manchester Planning Area<sup>1</sup>



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Village of Manchester has an official population of 1,640 residents, a 4 percent decrease since the 2010 census. Table O-1 summarizes select characteristics of vulnerable or sensitive populations in the Village of Manchester using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>



## ANNEX O: VILLAGE OF MANCHESTER

**Table O-1. Population Distribution for the Village of Manchester**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Village of Manchester	1,709	1,507	-11.8	67	318	133

### POPULATION GROWTH

The official 2020 Village of Manchester population is 1,640. Overall, the Village of Manchester experienced an increase in population between 1990 and 2020 of 2.6 percent, or an increase by 42 residents. Between 2010 and 2020, the Village of Manchester experienced a population decline. Table O-2 provides historic change rates in the Village of Manchester.

**Table O-2. Population Growth for the Village of Manchester, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Village of Manchester	1,598	1,475	1,709	1,640	42	2.6%	-69	-4.0%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Village of Manchester might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table O-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

# ANNEX O: VILLAGE OF MANCHESTER

**Table O-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

## PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table O-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table O-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Village of Manchester	Mayor

## PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Village of Manchester’s website. A total of three surveys were completed for the Village of Manchester. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX O: VILLAGE OF MANCHESTER

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Village of Manchester's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.



## ANNEX O: VILLAGE OF MANCHESTER

### HAZARD PROFILES

#### DAM FAILURE

The Village of Manchester is not profiling dam failure. The Village of Manchester does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX O: VILLAGE OF MANCHESTER

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Village of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Manchester can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Manchester, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Village of Manchester planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Village of Manchester:

**Table O-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Manchester is estimated at 21 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 385 potentially vulnerable residents in the Village of Manchester based on age. In addition, an estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-6).

**Table O-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Manchester	318	67	133

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX O: VILLAGE OF MANCHESTER

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Village of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Manchester can expect to experience an extreme cold event approximately once a three year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Manchester, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Manchester planning team members identified the following critical facilities (Table O-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Village of Manchester:

**Table O-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Manchester is estimated at 21 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 385 potentially vulnerable residents in the Village of Manchester based on age. In addition, an estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-8).

**Table O-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Manchester	318	67	133

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX O: VILLAGE OF MANCHESTER

## EXTREME HEAT

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Village of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Village of Manchester can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Village of Manchester, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Manchester planning team members identified the following critical facilities (Table O-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Village of Manchester:

**Table O-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Manchester is estimated at 21 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 385 potentially vulnerable residents in the Village of Manchester based on age. In addition, an estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-10).

**Table O-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Manchester	318	67	133

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

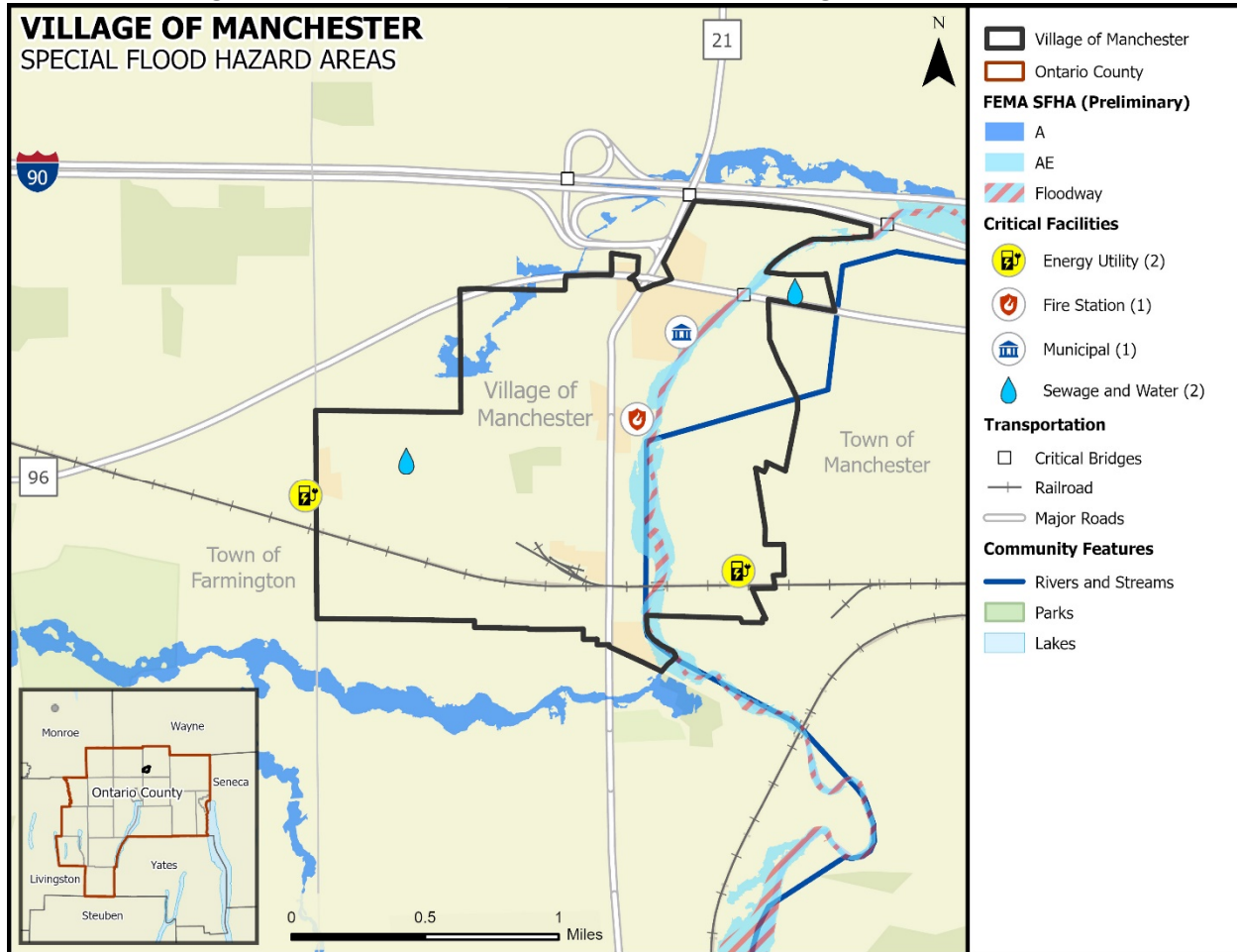
# ANNEX O: VILLAGE OF MANCHESTER

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Village of Manchester, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Village of Manchester based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure O-2.

Figure O-2. Estimated Flood Zones in the Village of Manchester<sup>8</sup>



### HISTORICAL OCCURRENCES

According to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County, no flood events were known to have impacted the Village of Manchester from January 1996 through to August 2023. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX O: VILLAGE OF MANCHESTER

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Manchester can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Manchester planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. No critical facilities in the Village of Manchester are located in the floodplain.

Historic loss estimates due to flood are presented in Table O-11 below.

**Table O-11. Potential Annualized Losses, 1996-2023<sup>9</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Manchester	0	\$0	\$0

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-12). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table O-12. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Manchester	133

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table O-13 depicts the level of impact for the Village of Manchester.

**Table O-13 Village of Manchester Impact**

JURISDICTION	IMPACT	DESCRIPTION
Village of Manchester	Limited	It is anticipated that the Village could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

<sup>9</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX O: VILLAGE OF MANCHESTER

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Village of Manchester currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Village of Manchester has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Flooding was identified by the Village of Manchester as a low-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Village of Manchester Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table O-14 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table O-14. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Village of Manchester	N/A	N/A	Good Standing	0

### *REPETITIVE LOSS*

The Village of Manchester currently has no repetitive loss or severe repetitive loss properties.



# ANNEX O: VILLAGE OF MANCHESTER

## HAIL

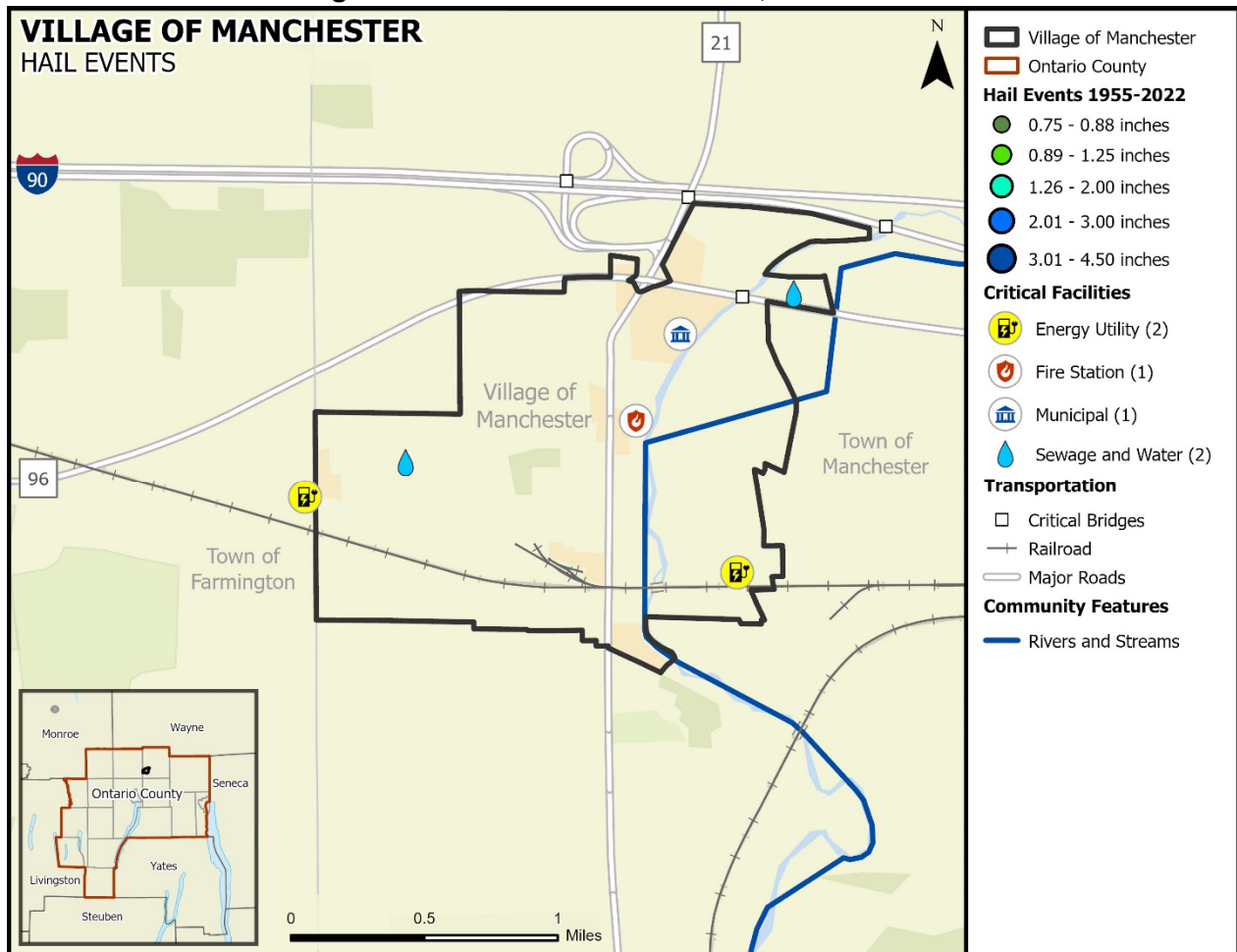
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure O-3 demonstrates that the Village of Manchester is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table O-15. A total of two reported historical hail events impacted the Village of Manchester between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Village of Manchester with latitude and longitude available were plotted (Figure O-3).

Figure O-3. Historical Hail Events, 1956-2023<sup>10</sup>



<sup>10</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX O: VILLAGE OF MANCHESTER

**Table O-15. Historical Hail Events, 1956-2023<sup>11</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Manchester	6/16/2008	1.5	0	0	\$67,676	\$1,624,227
	6/16/2022	1.25	0	0	\$0	\$0
<b>TOTALS</b>		<b>(Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$67,676</b>	<b>\$1,624,227</b>

Based on the list of historical hail events for the Village of Manchester, one reported event has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Manchester can expect a hail event approximately once per year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table O-16. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 164 manufactured homes are located in the Village of Manchester (23 percent of total housing stock). In addition, 75 percent (approximately 525 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during hail events.

**Table O-17. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Manchester	525	164

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-18).

<sup>11</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX O: VILLAGE OF MANCHESTER

**Table O-18. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Manchester	133

Overall, the total loss estimate of property and crops in the Village of Manchester is \$1,691,903 with an average annualized loss of \$25,065. Based on historic loss and damages, the impact of hail damages on the Village of Manchester can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table O-19. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town and Village of Manchester	\$1,691,903	\$25,065

# ANNEX O: VILLAGE OF MANCHESTER

## ICE STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Village of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Manchester can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Manchester, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Manchester planning team members identified the following critical facilities (Table O-20) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Village of Manchester:

**Table O-20. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Manchester is estimated at 21 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 385 potentially vulnerable residents in the Village of Manchester based on age. In addition, an estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-21).

**Table O-21. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Manchester	318	67	133

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX O: VILLAGE OF MANCHESTER

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Village of Manchester is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Village of Manchester over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Village of Manchester.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX O: VILLAGE OF MANCHESTER

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There have been no recorded lightning events in the Village of Manchester from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Village of Manchester is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Village of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table O-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Village of Manchester's population live below the poverty level (Table O-23).

**Table O-23. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Manchester	133

With no historical lightning events or losses, the impacts of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Village of Manchester due to lightning are considered negligible.

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**Table O-24. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Manchester	\$0	\$0



## ANNEX O: VILLAGE OF MANCHESTER

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Village of Manchester, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Manchester can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Manchester, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Manchester planning team members identified the following critical facilities (Table O-25) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Village of Manchester:

**Table O-25. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Manchester is estimated at 21 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 385 potentially vulnerable residents in the Village of Manchester based on age. In addition, an estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-26).

**Table O-26. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Manchester	318	67	133

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX O: VILLAGE OF MANCHESTER

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Village of Manchester. Historical tornado events are often provided on a county-wide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Village of Manchester can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Village of Manchester is “Occasional”.

**Table O-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 164 manufactured homes are located in the Village of Manchester (23 percent of total housing stock). In addition, 75 percent (approximately 525 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table O-28. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Manchester	525	164

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-29).

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**Table O-29. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Manchester	133

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Village of Manchester would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table O-30. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Village of Manchester	\$0	\$0

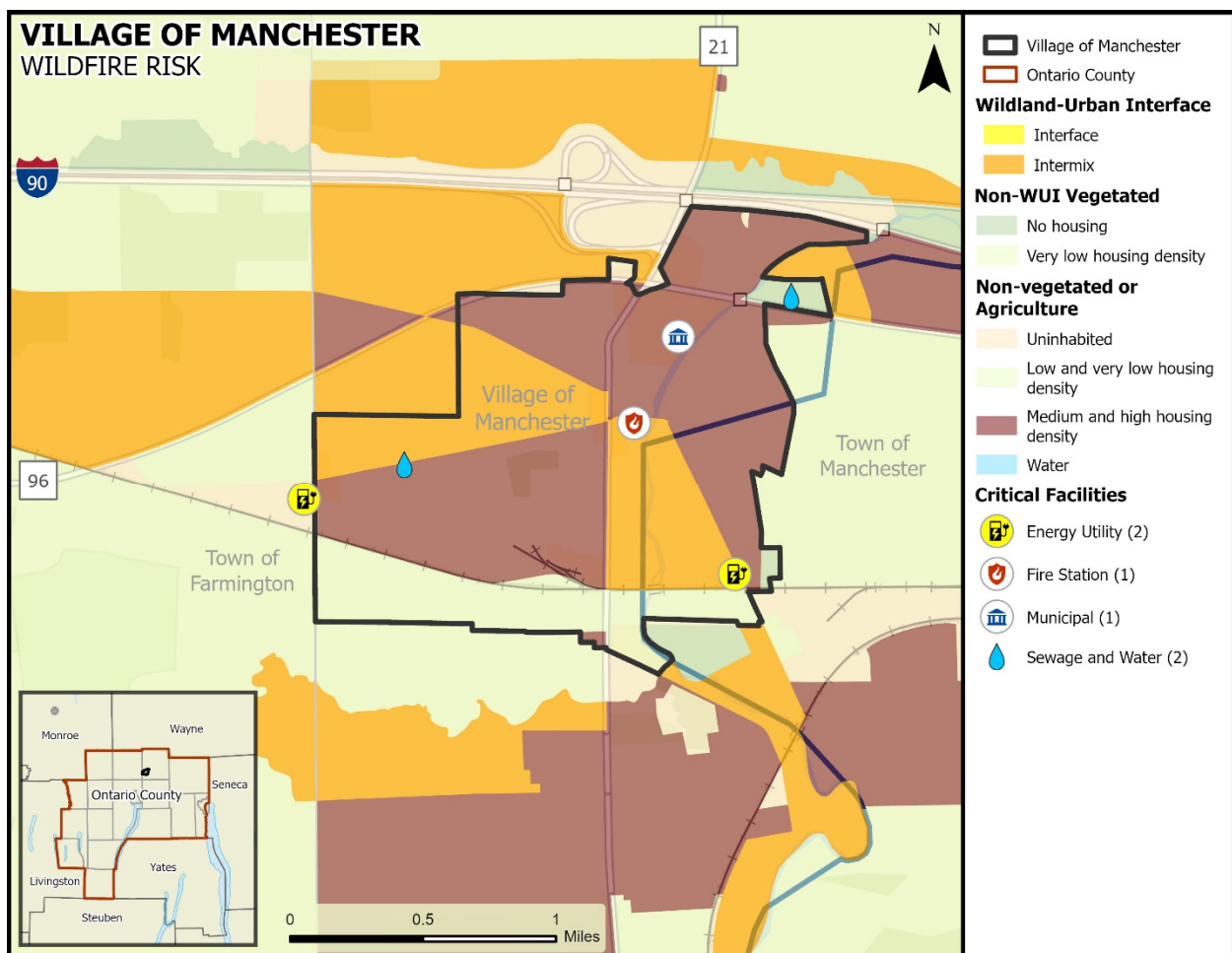
# ANNEX O: VILLAGE OF MANCHESTER

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure O-4). The Village of Manchester planning area is considered at low risk for wildfires with limited WUI areas.

Figure O-4. Village of Manchester Wildland Urban Interface Map<sup>12</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>12</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX O: VILLAGE OF MANCHESTER

of Forest Protection issues color coded danger alerts. The entire planning area, including the Village of Manchester, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

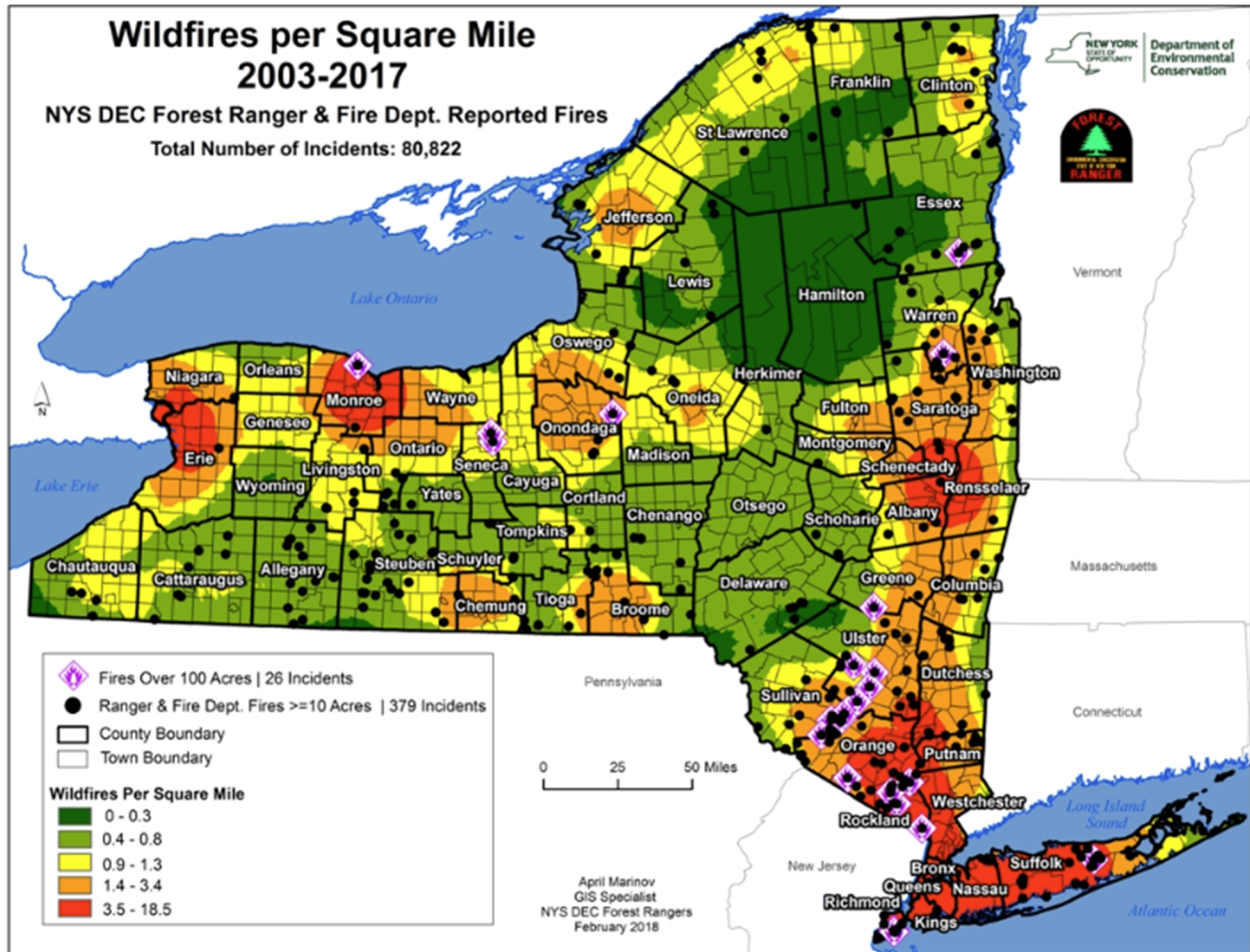
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure O-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Village of Manchester planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX O: VILLAGE OF MANCHESTER

Figure O-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Village of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.



ANNEX O: VILLAGE OF MANCHESTER

**Table O-31. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

For the Village of Manchester, the impact from a wildfire event can be considered “Limited”, meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.



## ANNEX O: VILLAGE OF MANCHESTER

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, 15 wind events are known to have occurred in the Village of Manchester. Based upon NCEI records 12 events resulted in property damages. Table O-32 presents information on known historical events impacting the Village of Manchester.

**Table O-32. Historical Wind Events, 1968-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Manchester	6/8/2007	50	0	0	\$14,215	\$0
	5/21/2013	50	0	0	\$6,357	\$0
	5/13/2014	50	0	0	\$12,449	\$0
	6/10/2015	52	0	0	\$18,616	\$0
	6/23/2015	50	0	0	\$12,411	\$0
	6/18/2017	50	0	0	\$14,509	\$0
	9/4/2017	50	0	0	\$12,000	\$0
	9/4/2017	50	0	0	\$0	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	10/15/2017	52	0	0	\$0	\$0
	8/14/2018	52	0	0	\$2,349	\$0
	11/15/2020	55	0	0	\$0	\$0
	7/20/2023	51	0	0	\$2,056	\$0
	8/7/2023	51	0	0	\$10,000	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$124,174</b>	<b>\$0</b>

Based on the list of historical wind events for the Village of Manchester, three of the reported events have occurred since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the

<sup>13</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX O: VILLAGE OF MANCHESTER

Ontario County planning area, the Village of Manchester can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Manchester planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table O-33. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Manchester	2 Energy Utility Facility, 1 Fire Station, 1 Municipal Building, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 164 manufactured homes are located in the Village of Manchester (23 percent of total housing stock). In addition, 75 percent (approximately 525 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during wind events.

**Table O-34. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Manchester	525	164

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Village of Manchester’s population live below the poverty level (Table O-35).

**Table O-35 Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Manchester	133

Impact of wind events experienced in the Village of Manchester would be considered “Limited”, with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$124,174 damages (in 2023 dollars) in the Village of Manchester due to wind events. The estimated average annual loss from a wind event is \$1,840.

**Table O-36. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town and Village of Manchester	\$124,174	\$1,840

## ANNEX O: VILLAGE OF MANCHESTER

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX O: VILLAGE OF MANCHESTER

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>VM-1: Critical Facility Flood Protection</b>	
<b>Name of Jurisdiction:</b>	Village of Manchester
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood risk to some critical facilities - Village of Manchester Highway Garage - In Flood Zone; Village of Manchester Police Dept. & Fire Hall - In Flood Zone; Sewage Treatment Plant Structure - Potential Flood Risk - on the edge of flood zone; flood issues during heavy rains in specified areas of the village, particularly Clifton Street, North Avenue, Merrick Avenue, and Westplex Drive. trees have been damaged
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Develop plan for protecting existing Village facilities located in a 500yr flood zone.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VM-1: Flood Risk Management
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Develop plan for mitigating flood hazard to Village facilities located in a 500yr flood zone. Consider site amendments or new/shared facilities in a different location.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Saving facilities and equipment from potential loss.
<b>Estimated Cost:</b>	Phase 1 Study - \$75,000
<b>Other Factors Considered:</b>	Phase 2 Implementation – TBD
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	FEMA, Local Budget Process
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 ANALYSIS</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. On-going project. Update program
<b>Report of Progress:</b>	mitigated section to include “State Street” and remove
<b>Evaluation of Effectiveness:</b>	“Village of Manchester Police Department”. Update Phase II implementation to be on-going at this time.

## ANNEX O: VILLAGE OF MANCHESTER

<b>Previous Action Worksheet</b>	
<b>VM-2: Storm Water and Erosion Control Infrastructure</b>	
<b>Name of Jurisdiction:</b>	Village of Manchester
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Concerns with storm water runoff from roads concerns and sediment/erosion control - stream corridor restoration/streambank stabilization periodically; tree maintenance and inspection; need to prevent automotive run-off from entering the water system (regulate? curbing? drainage?)
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Inventory existing storm water infrastructure and develop a plan for installing/upgrading appropriate infrastructure to minimize erosion and uncontrolled runoff
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VM-2
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	VM-2: Storm Water and Erosion Control Infrastructure - Inventory and analysis and plan for implementation
<b>Summary of Evaluation Benefits (losses avoided):</b>	Prevent losses from spot location flooding. Phase 1: Initial Study \$75,000 Phase 2: Implementation TBD
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2021
<b>Potential Fund Sources:</b>	FEMA, Town Budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 ANALYSIS</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. On-going project. Update Phase II implementation and timeline for completion to reflect continuous.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX O: VILLAGE OF MANCHESTER

<b>Previous Action Worksheet</b>	
<b>VM-3: Generator Inventory and Upgrade</b>	
<b>Name of Jurisdiction:</b>	Village of Manchester
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Utility failure - update inventory of generators, determine where additional are needed (Sewage Treatment Plant, etc.); utility lines could be buried, or future lines could be buried
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Generator Inventory – purchase additional generators and modify/upgrade support facilities to protect from weather and flooding
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VM-3
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Generator Inventory and Upgrade
<b>Summary of Evaluation Benefits (losses avoided):</b>	Reliable backup power will avoid significant losses that would occur in the event of failure of public sewer and other essential services. Generators are about \$50,000/location
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2019
<b>Potential Fund Sources:</b>	Village Budget Reserve Fund
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Risk Management
<b>2024 ANALYSIS</b>	
<b>Date of Status Report:</b>	Completed and Defer to Plan Update. The Village has installed generators but will continue to assess critical facilities for installation and need.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX O: VILLAGE OF MANCHESTER

<b>Previous Action Worksheet</b>	
<b>VM-4: Fire Protection – Pratt Road Water Main</b>	
<b>Name of Jurisdiction:</b>	Village of Manchester
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Fire safety concern - upsize water mains and hydrants to improve fire protection.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Increase water main on Pratt Rd from 4" to 6". Establish pit and connections to Village of Shortsville water lines. Establish hydrant inspections and replacement.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VM-4: Fire Safety – Increasing Size of Water Mains
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Increase size of water main on Pratt Rd, replace old water lines with new, replace old hydrants with new.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Larger, upgraded water supply infrastructure will reduce losses from fires.
<b>Estimated Cost:</b>	\$500,000
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village of Manchester DPW
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	Grants, Village Reserve Fund
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Set up a water transmission grid by streets to target section of replacement each year.
<b>2024 ANALYSIS</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. Update action/projects considered to remove and action or project description to remove "increase water main on Pratt Rd from 4" to 6". Update to remove Village of Shortsville from action as it pertains specifically to Village of Manchester.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	



# ANNEX O: VILLAGE OF MANCHESTER

## NEW MITIGATION ACTIONS

VILLAGE OF MANCHESTER PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Generator at Town Hall and DPW Building: During power outages, the Town Hall and Public Works facility would be without lights, communications, and maintenance equipment/machinery. The operations are basically brought to a halt. This project Helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Acquire and install a permanent generator at both critical facilities: Town Hall and DPW building located at 1272 Co. Rd. 7.	Yes	Further review required	24 months	Village Board and Public Works	\$1,000,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Fuel)
2	2.3	Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Tree Trimming Program: Tree maintenance is a priority and a plan to address continued maintenance to reduce risk of further damage will need to be developed and implemented. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Adopt and implement a routine tree trimming program that clears tree limbs near power lines and/or hanging in right-of-way; Remove dead trees from right-of way and drainage systems on a scheduled basis.	No	Further review required	12 months	Village Board and Public Works	Staff Time	Reduce damages to infrastructure; Ensure continuity of services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget, Staff time	M	Safety/Security
3	3.3	Flood, Hail, Ice Storms, Landslide, Lightning, Snow Storms,	Review and update building codes: Current standards do not full account for hazard mitigation and building codes should be reviewed and updated. This project protects infrastructure, reduces cost of	Incorporate higher standards for hazard resistance in local application of the building code.	No	N/A	12 months	Village Board	Staff Time	Reduce risk of damages to structures through improved construction techniques; Reduce recovery efforts for the community after	Local Department Budget, Staff time	M	Communication

# ANNEX O: VILLAGE OF MANCHESTER

VILLAGE OF MANCHESTER PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
		Tornado, Wildfire, Wind	reparation, and prevents injury to residents.							an event.			
4	1.2	Flood, Snow, Storm, Tornado, Wildfire, Wind	Emergency Notification System: The general public may not have the means to access educational material or notification alerts. By considering an area wide notification system ensures community members are aware of risk. This action promotes public safety.	Look to coordinate with County to activate locally an area-wide telephone Emergency Notification System ("Reverse 911").	No	N/A	24-36 months	Village Board and Public Works	\$1,000,000	Reduce risk to residents through improved communication and early warning.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Communication
5	6.1	Drought, Extreme Heat, Flood, Wildfire	Smart Growth Initiatives: Consider in an effort to make the Village more resilient and help reduce the impacts of climate change Village is experiencing. This project protects the community and reduces risk of flooding.	Adopt smart growth initiatives. Incorporate a formal hazard mitigation plan in long-term community development planning activities.	No	N/A	12 months	Village Board	Staff Time	Reduce risk in high hazard areas by promoting and incentivizing development in low-risk areas; Build resiliency within the community; Reduce risk of damages through improved planning and construction practices.	Local Department Budget, Staff time	M	Communication
6	4.2	Flood, Water Supply Contamination	Sewer man-hole covers: Assessment of village sewer manholes to prevent water contamination which has been experienced in the past to due stormwater and flooding. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Equip sewer manholes with watertight covers and inflow guards.	No	Further review required	24 months	Village Board and Public Works	\$100,000	Reduce risk of flood water contamination; Reduce risk of surface water infiltration and sewage backup; Ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Safety/Security, Food/Water/ Shelter

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7	6.1	Drought, Flood	Green Infrastructure Program: Explore alternative ways to promote mitigation and preserve the land within the Village due to the impact of climate change. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Establish, adopt and implement a "green infrastructure" program for parks, nature preserves, greenbelts, etc.	No	N/A	36-60 months	Village Board	Staff Time	Reduce impacts of flood through expanded greenspace and restoration of floodplains and wetlands; Reduce impacts of drought through green infrastructure that works to replenish groundwater reserves; Reduce impacts of Urban Island Heat effect in densely populated areas through tree planting.	Local Department Budget, Staff time	L	Safety/Security
8	2.3	Flood	Debris Clearing Program: Extreme rainfall and snowmelt events result in high stormwater flow rates, which can result in significant amounts of debris (including sediment, rubble, and woody debris) being mobilized and directed to downstream portions of drainage courses. The build-up of debris can compromise the performance of bridges and culverts, jeopardizing these installations (as well as the associated roadways). This project protects the community and reduces risk of flooding.	Adopt and implement a program for clearing debris from bridges, drains and culverts.	No	Further review required	24 months	Village Board and Public Works	\$50,000 (annually)	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security

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VILLAGE OF MANCHESTER PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
9	4.2	Flood	Flood Risk Study: Evaluation of high-risk areas within village to identify flood mitigation needs to reduce risk. Floodwaters can cause debris to back up at the bridge, exacerbating flooding, damaging the bridge, and causing scour and erosion to embankments at the bridge site. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Undertake a comprehensive study of flood risk and reduction alternatives. Implement feasible alternatives for flood reduction.	No	Further review required	24 - 36 months	Village Board	\$500,000	Improve risk assessment; Reduce risk of damages or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Communication, Safety/Security
10	4.3	Flood	Wetland Development Restrictions: Reviewing and updating local codes and ordinances to better protect and maintain water resources. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Adopt wetlands development regulations; Implement a Comprehensive Watershed Ordinance for new development.	No	Further review required	12- 24 months	Village Board	Staff Time	Preserve/restore the natural function of the floodplain; Reduce flood damages and risk of injuries or fatalities through comprehensive development standards.	Local Department Budget	M	Communication
11	3.2	Flood	Education for installing backflow flows: Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Provide how-to information to residents for installing backflow valves to prevent reverse-flow floods.	No	Further review required	12- 24 months	Village Board	Staff Time	Reduce damage impact on residents after a flood event; Reduce risk of sewage back-up in structures; Reduce risk of injury or illness to residents.	Local Department Budget	M	Communication

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	5.4	Flood	Drainage System Improvements: Inadequate drainage systems cause flooding, damages to roadways, and create hazardous driving conditions for motorists. This project protects infrastructure, reduces risk, cost of reparation, and prevents injury to residents.	Increase drainage capacity; add stormwater detention and/or retention basins as deemed necessary to reduce flood risk.	No	Further review required	24 – 48 months	Village Board	\$1,000,000	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
13	6.1	Flood	Vegetation Maintenance: Loose vegetation mix with drainage water and cause damming and plugged culverts. When this occurs, flood water escapes the existing drainage network, causing significant damage to public and private property. Recovery efforts are time consuming and labor intensive. This project protects the community and reduces the risk of flooding.	Retain and maintain natural vegetation in stormwater channels.	No	Further review required	12- 24 months	Village Board	Staff Time	Reduce risk of flood damages due to erosion or scour during flood events.	Local Department Budget	H	Safety/Security
14	4.3	Flood	New Development Regulations: Reviewing and updating local codes and ordinances will guide decisions that will protect and maintain water resources. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Adopt regulations to limit amount of impervious cover in conjunction with new development.	No	N/A	12- 24 months	Village Board	Staff Time	Reduce flood damages and risk of injuries or fatalities through regulated development; Reduce the amount of stormwater runoff in densely developed areas during flood events; Reduce the risk of downstream flooding.	Local Department Budget	M	Communication

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
15	2.3	Wildfire, Fire	Fire Hydrant Maintenance Program: In the event of a wildfire or fire event the Village would need to ensure fire hydrants are working appropriately to enhance emergency response efforts.	Adopt and implement routine fire hydrant maintenance program.	No	Further review required	12- 24 months	Village Board, Local Fire Department	Staff Time	Reduce risk and spread of wildfires through routine maintenance of fire hydrants; Reduce risk of injury or damages.	Local Department Budget, Local Fire Department Budget	M	Safety/Security
16	4.2	Drought	Drought Mitigation at critical public facilities: Assessment of critical facilities to identify those that would benefit from drought mitigation measures to protect any further damage.	Upgrade critical facilities to include drought mitigation measures and expansive soils protection such as greywater reuse systems, drought tolerant landscaping, installation of a sprinkler system with regular watering schedule and installation of French drains where high plasticity soils are indicated.	No	Further review required	48-60 months	Village Board and Public Works	\$100,000	Reduce damages at critical facilities.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Safety/Security
17	2.3	Tornado	Construction of safe rooms: The Village has no designated safe rooms within the community for at-risk residents in the event of a high-wind or tornado event.	Build safe room shelters throughout jurisdiction to include community centers and/or manufactured home parks so that all park residents can reach shelter in less than five minutes.	No	Further review required	48-60 months	Village Board and Public Works	\$500,000	Reduce risk to citizens by providing shelter in high-risk areas during extreme weather events.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Safety/Security, Food/Water/ Shelter
18	4.2	Extreme Cold, Extreme Heat, Flood, Hail, Ice	Community Shelter / EOC: The Village has no designated shelter for residents to evacuate. Considering potential site locations or construction a community	Find solutions with assistance from Ontario County to upgrade a facility and/or construct a community shelter for extreme hazard events.	Yes	Further review required	12-60 months	Village Board, in conjunction with Ontario County, School Districts, Local Churches	\$500,000 - \$1,000,000	Reduce risk to residents by providing shelter during extreme weather events.	Local Department Budget; HMGP, BRIC, CDBG, PA	H	Safety/Security, Food/Water/ Shelter

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
		Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind	shelter will be needed to help reduce injuries or fatalities to at risk and vulnerable residents. This project promotes public safety.	Ensure generator is installed at site location once determined.							406 (when applicable) local bonds		
19	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
20	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.									
21	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
22	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

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23	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
24	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Village Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX O: VILLAGE OF MANCHESTER

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
25	3.1	Infestation	Public Awareness Program: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Village Board , Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
26	3.3	Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Village Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
27	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Village Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

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28	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Village Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
29	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customer by mail or paperless enrollment.	No	N/A	36-60 months	Village Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
30	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Village Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX O: VILLAGE OF MANCHESTER

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Village of Manchester
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	X
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	X
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	X
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX O: VILLAGE OF MANCHESTER

COMMUNITY CAPABILITY CHECKLIST	Village of Manchester
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	X
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX O: VILLAGE OF MANCHESTER

COMMUNITY CAPABILITY CHECKLIST	Village of Manchester
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	
Public Information Official	
Resource Development/ Grant Writer	





# ANNEX P TOWN OF NAPLES

ANNEX P: TOWN OF NAPLES

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## ANNEX P: TOWN OF NAPLES

### JURISDICTION PROFILE

#### OVERVIEW

The Town of Naples is located in Ontario County, New York with a population of just over 2,400. The town is in the southwestern corner of Ontario County. According to the United States Census Bureau, the town has a total area of 39.5 square miles, all land. The western town line is the border of Livingston County, and the southern town line is the border of Steuben County. The east town line is the border of Yates County. New York State Route 21 and New York State Route 245 intersect at Naples Village. New York State Route 53 is the north-south highway in the south part of Naples. Figure P-1 shows the general location of the Town of Naples.

### TOWN OF NAPLES CONTACT INFORMATION

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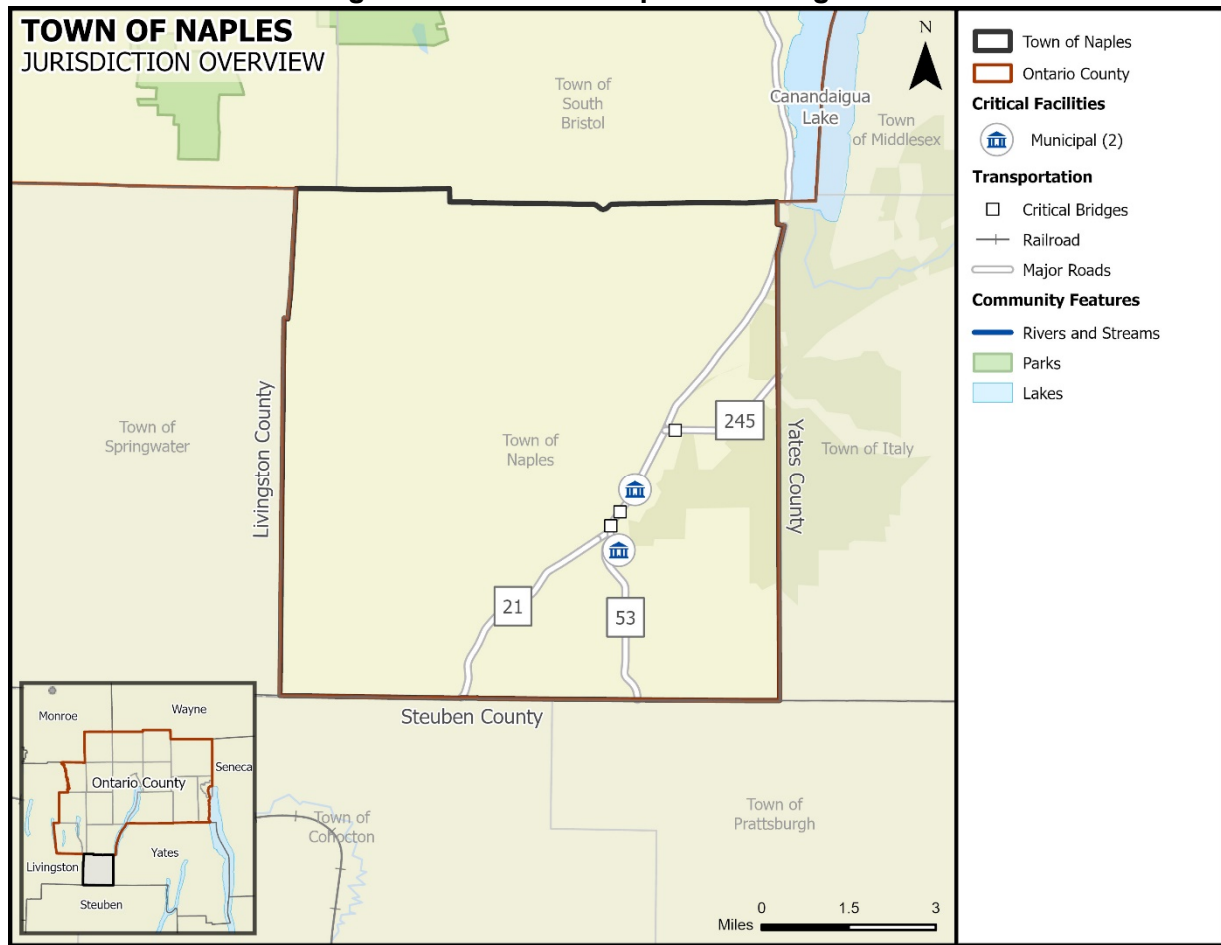
Email: [tamara@naplesny.us](mailto:tamara@naplesny.us)

### NOTE TO THE REVIEWER

It is noted that the Town of Naples and the Village of Naples are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

# ANNEX P: TOWN OF NAPLES

**Figure P-1. Town of Naples Planning Area<sup>1</sup>**



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Naples has an official population of 2,403 residents, a 4 percent decrease since the 2010 census. Table P-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Naples using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>



## ANNEX P: TOWN OF NAPLES

**Table P-1. Population Distribution for the Town of Naples**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Naples	2,502	2,444	-2.31%	63	510	491

### POPULATION GROWTH

The official 2020 Town of Naples population is 2,403. Overall, the Town of Naples experienced a decrease in population between 1990 and 2020 of 6.1 percent, or a decrease of 156 residents. Between 2010 and 2020, the Town of Naples experienced a population decline. Table P-2 provides historic change rates in the Town of Naples.

**Table P-2. Population Growth for the Town of Naples, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Naples	2,559	2,441	2,502	2,403	-156	-6.1%	-99	-4.0%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Naples might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table P-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

# ANNEX P: TOWN OF NAPLES

**Table P-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

## PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table P-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table P-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Naples	Town Supervisor

## PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Naples’ website. A total of four surveys were completed for the Town of Naples. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX P: TOWN OF NAPLES

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Naples' website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.



## ANNEX P: TOWN OF NAPLES

### HAZARD PROFILES

#### DAM FAILURE

The Town of Naples is not profiling dam failure. The Town of Naples does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX P: TOWN OF NAPLES

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Naples can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Naples, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Naples planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Town of Naples:

**Table P-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

The population over 65 in the Town of Naples is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 573 potentially vulnerable residents in the Town of Naples based on age. In addition, an estimated 20 percent of the Town of Naples’s population live below the poverty level (Table P-6).

**Table P-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Naples	510	63	491

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX P: TOWN OF NAPLES

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Naples can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Naples, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Naples planning team members identified the following critical facilities (Table P-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Town of Naples:

**Table P-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

The population over 65 in the Town of Naples is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 573 potentially vulnerable residents in the Town of Naples based on age. In addition, an estimated 20 percent of the Town of Naples’s population live below the poverty level (Table P-8).

**Table P-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Naples	510	63	491

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX P: TOWN OF NAPLES

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Naples can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Naples, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Naples planning team members identified the following critical facilities (Table P-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Town of Naples:

**Table P-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

The population over 65 in the Town of Naples is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 573 potentially vulnerable residents in the Town of Naples based on age. In addition, an estimated 20 percent of the Town of Naples’s population live below the poverty level (Table P-10).

**Table P-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Naples	510	63	491

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

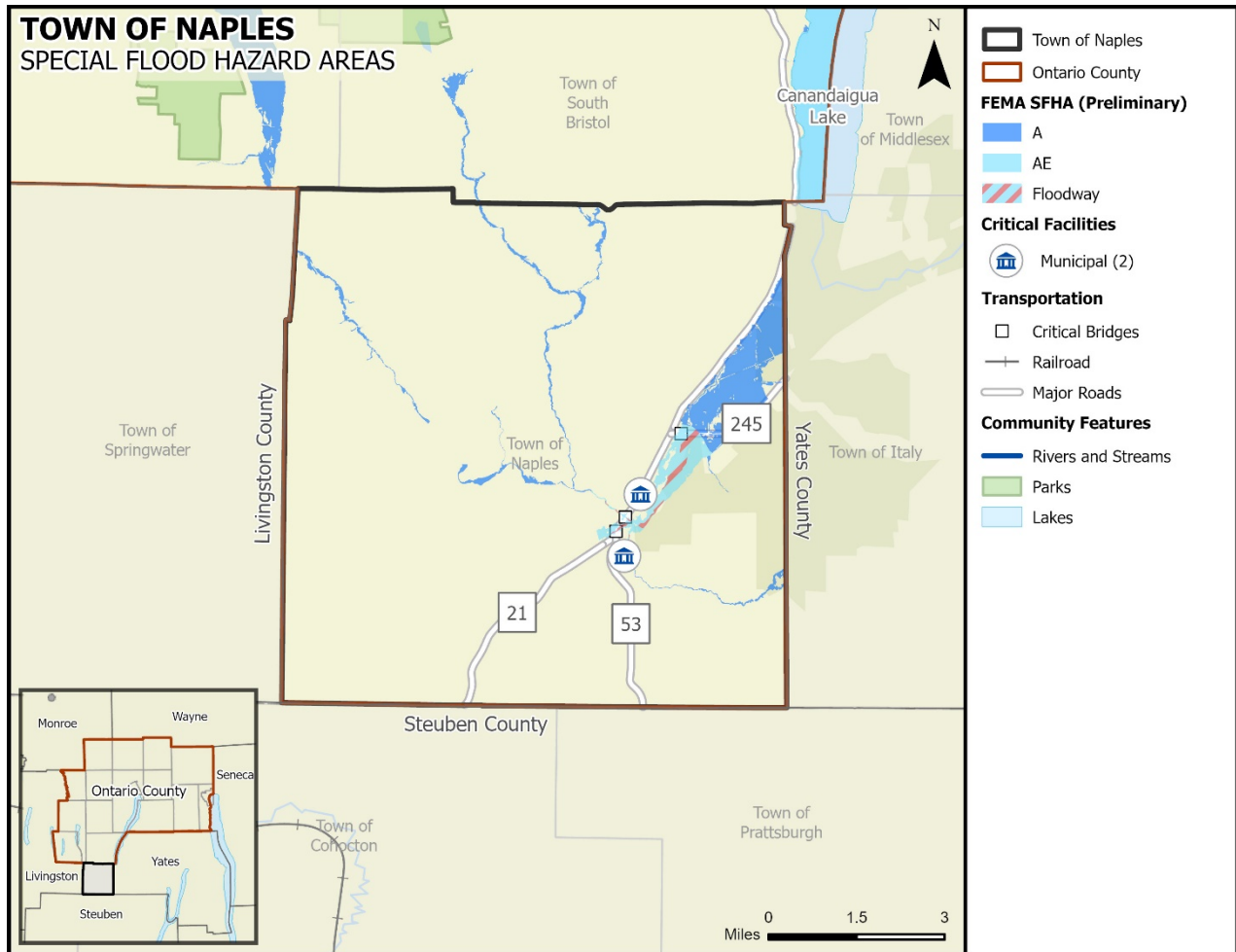
# ANNEX P: TOWN OF NAPLES

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Naples, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Naples, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure P-2.

**Figure P-2. Estimated Flood Zones in the Town of Naples<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table P-11 provides the historical occurrences of flood events for the Town of Naples according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, seven flood events were known to have impacted the Town of Naples, based upon NCEI records. Flood events are

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX P: TOWN OF NAPLES

often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table P-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Naples	5/12/2000	0	0	\$129,521	\$0
	5/20/2004	0	0	\$9,397,282	\$0
	5/22/2004	0	0	\$15,662	\$0
	9/30/2010	0	0	\$13,559	\$0
	5/16/2014	0	0	\$186,741	\$0
	6/14/2015	0	0	\$18,616	\$0
	10/29/2021	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$9,761,381</b>	<b>\$0</b>

Based on the list of historical flood events for the Town of Naples, one of the reported events has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Naples can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Naples planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. There are no critical facilities in the Town of Naples located in the floodplain.

Historic loss estimates due to flood are presented in Table P-12 below.

**Table P-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Naples	7	\$9,761,381	\$354,959

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Town of Naples’ population live below the poverty level (Table P-13). While warning times for these type

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX P: TOWN OF NAPLES

of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table P-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Naples	491

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table P-14 depicts the level of impact for the Town of Naples.

**Table P-14 Town of Naples Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Naples	Limited	It is anticipated that the Town could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Naples currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Naples has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Flooding was identified by the Town of Naples as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Naples Zoning Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table P-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.



## ANNEX P: TOWN OF NAPLES

**Table P-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Naples	6/15/2016	9/13/2006	Good Standing	23

### *REPETITIVE LOSS*

The Town of Naples currently has no repetitive loss or severe repetitive loss properties.

## ANNEX P: TOWN OF NAPLES

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence across the planning area demonstrates that the Town of Naples is vulnerable to hail events overall. However, no reported historical hail events have impacted the Village of Naples between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years.

#### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Naples can expect approximately one hail event every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table P-16. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 150 manufactured homes are located in the Town of Naples (12 percent of total housing stock). In addition, 67 percent (approximately 819 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during hail events.

**Table P-17. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Naples	819	150

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Town of Naples’ population live below the poverty level (Table P-18).

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**Table P-18. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Naples	491

Overall, the total loss estimate of property and crops in the Town of Naples is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Town of Naples can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table P-19. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Naples	\$0	\$0

## ANNEX P: TOWN OF NAPLES

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Naples can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Naples, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Naples planning team members identified the following critical facilities (Table P-20) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Town of Naples:

**Table P-20. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

The population over 65 in the Town of Naples is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 573 potentially vulnerable residents in the Town of Naples based on age. In addition, an estimated 20 percent of the Town of Naples’s population live below the poverty level (Table P-21).

**Table P-21. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Naples	510	63	491

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX P: TOWN OF NAPLES

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of Naples is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Naples over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Naples.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX P: TOWN OF NAPLES

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There has been one recorded lightning event in the Town of Naples from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

**Table P-22. Historical Lightning Events, 1996-2023<sup>11</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Naples	8/8/2005	0	0	\$75,400	\$0
<b>TOTALS</b>		<b>0</b>	<b>0</b>	<b>\$75,400</b>	<b>\$0</b>

Based on the list of historical lightning events for the Town of Naples, there have been no reported events since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Naples is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table P-23. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>11</sup> Historical events are reported from January 1996 through June 2023; values are in 2023 dollars.

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stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Town of Naples' population live below the poverty level (Table P-24).

**Table P-24. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Naples	491

Historical losses and damages as a result of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the total loss estimate for the Town of Naples (in 2023 dollars) is considered \$75,400 with an average annualized loss of \$2,742 (Table P-25).

**Table P-25. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Naples	\$75,400	\$2,742



## ANNEX P: TOWN OF NAPLES

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Naples can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Naples, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Naples planning team members identified the following critical facilities (Table P-26) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Town of Naples:

**Table P-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

The population over 65 in the Town of Naples is estimated at 21 percent of the Town’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 573 potentially vulnerable residents in the Town of Naples based on age. In addition, an estimated 20 percent of the Town of Naples’s population live below the poverty level (Table P-27).

**Table P-27. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Naples	510	63	491

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX P: TOWN OF NAPLES

## TORNADO

### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### *HISTORICAL OCCURRENCES*

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Town of Naples. Historical tornado events are often provided on a county-wide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Naples can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Town of Naples is “Occasional”.

### *VULNERABILITY AND IMPACT*

The Town of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table P-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 150 manufactured homes are located in the Town of Naples (12 percent of total housing stock). In addition, 67 percent (approximately 819 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table P-29. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Naples	819	150

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a

## ANNEX P: TOWN OF NAPLES

long-term stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Town of Naples' population live below the poverty level (Table P-30).

**Table P-30. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Naples	491

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Town of Naples would be considered "Limited", with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table P-31. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Naples	\$0	\$0

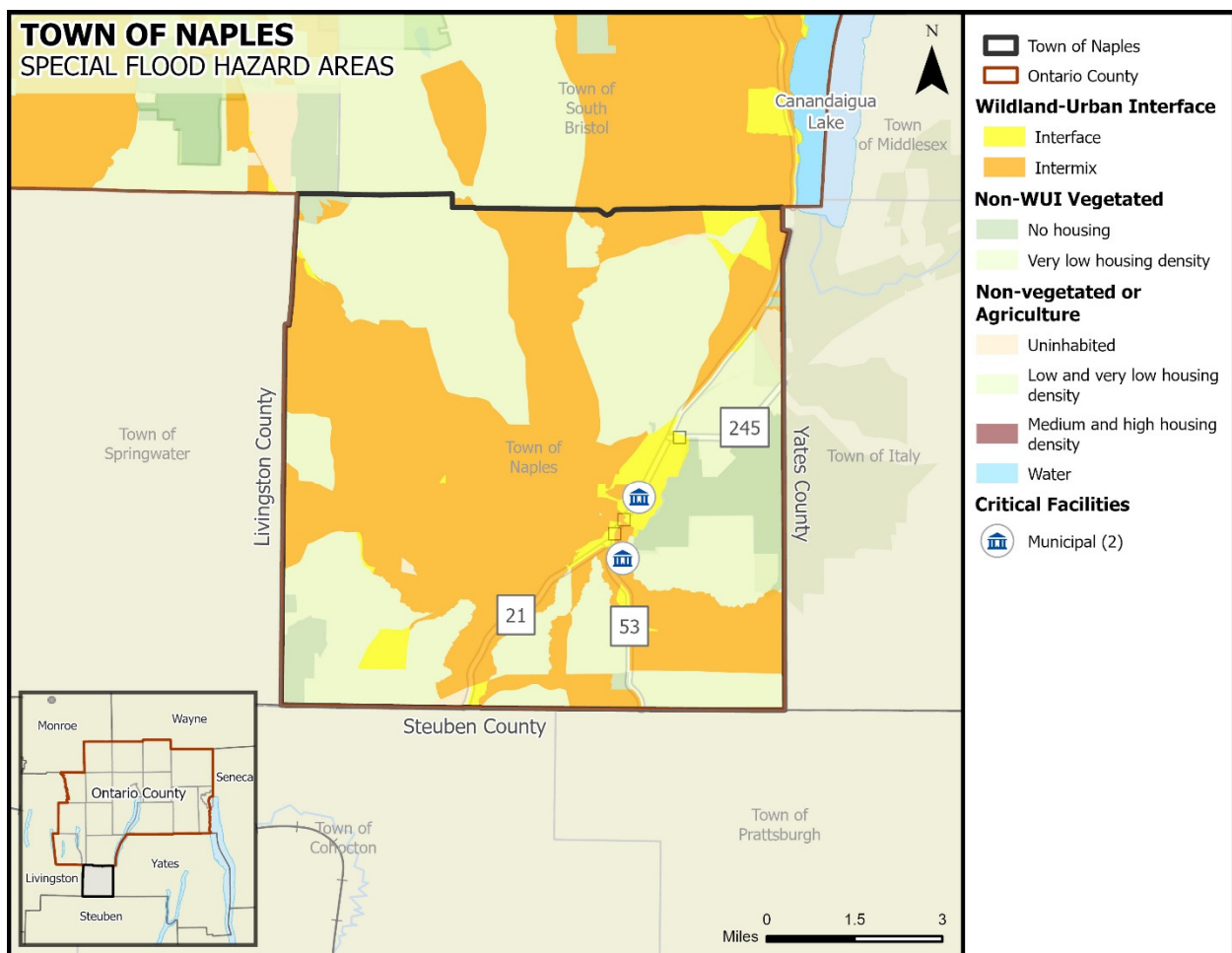
# ANNEX P: TOWN OF NAPLES

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure P-3). The Town of Naples planning area is considered at low risk for wildfires with limited WUI areas.

Figure P-3. Town of Naples Wildland Urban Interface Map<sup>12</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>12</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX P: TOWN OF NAPLES

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Naples, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

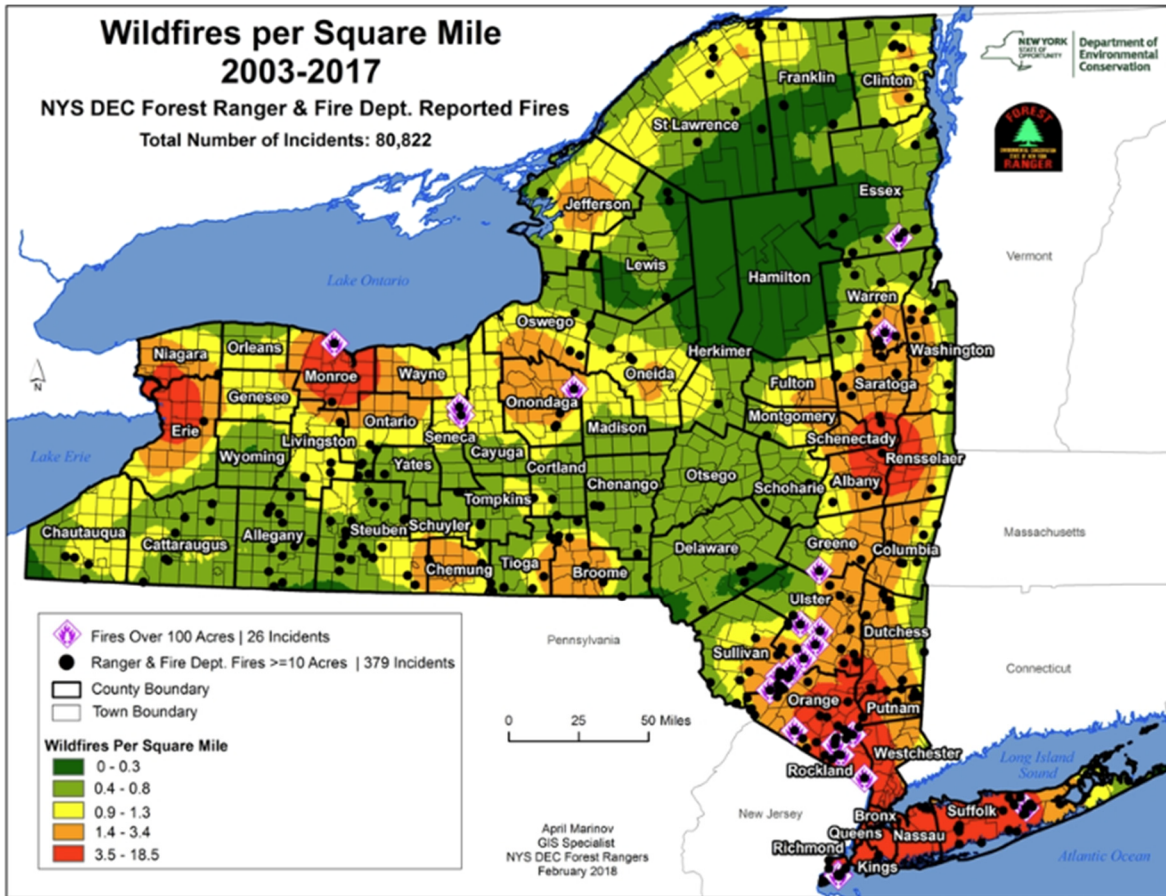
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure P-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Town of Naples planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX P: TOWN OF NAPLES

### Figure P-4. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported county-wide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.

ANNEX P: TOWN OF NAPLES

**Table P-32. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

For the Town of Naples, the impact from a wildfire event can be considered "Limited", meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.



## ANNEX P: TOWN OF NAPLES

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, nine wind events are known to have occurred in the Town of Naples. Table P-33 presents information on known historical events impacting the Town of Naples.

**Table P-33. Historical Wind Events, 1968-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Naples	7/22/2002	50	0	0	\$16,445	\$0
	7/8/2007	50	0	0	\$14,219	\$0
	1/9/2008	50	0	0	\$14,031	\$0
	7/17/2008	52	0	0	\$33,661	\$0
	7/8/2014	55	0	0	\$12,431	\$0
	7/25/2016	50	0	0	\$18,462	\$0
	8/29/2022	51	0	0	\$2,188	\$0
	4/1/2023	51	0	0	\$2,056	\$0
	7/20/2023	51	0	0	\$514	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$114,007</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of Naples, three of the reported events have occurred since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Naples can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

<sup>13</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX P: TOWN OF NAPLES

**Table P-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Naples	2 Municipal Buildings

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 150 manufactured homes are located in the Town of Naples (12 percent of total housing stock). In addition, 67 percent (approximately 819 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during wind events.

**Table P-35. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Naples	819	150

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Town of Naples' population live below the poverty level (Table P-36).

**Table P-36 Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Naples	491

Impact of wind events experienced in the Town of Naples would be considered "Limited", with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$114,007 damages (in 2023 dollars) in the Town of Naples due to wind events. The estimated average annual loss from a wind event is \$1,689.

**Table P-37. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town and Village of Naples	\$114,007	\$1,689

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## ANNEX P: TOWN OF NAPLES

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX P: TOWN OF NAPLES

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TN-1: Garlinghouse Road Re-construction</b>	
<b>Name of Jurisdiction:</b>	Town of Naples
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood and stormwater concerns, significant flooding in the past; Floods have washed out roads, covered roads with debris; Water Supply Structures have been affected by heavy rain events; flooding has caused damage to bridges, culverts, and road.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Garlinghouse Road re-construction – install larger culverts, perform stream bank stabilization. This is not actively being pursued due to lack of funds.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TN-1: Garlinghouse Road Re-construction – including culvert upgrades and bank stabilization
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Seek permission from NYS DEC, FEMA & Army Corps of Engineers to perform the needed stream bank stabilization and culvert replacements
<b>Summary of Evaluation Benefits (losses avoided):</b>	\$7 million to perform the desired improvements. A total loss of the roadway would cost 10 million to rebuild. Therefore a \$3 million loss would be avoided.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Highway Dept.
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	FEMA, NYS DEC, Army Corps of Engineers Grant Opportunities
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Added to the Highway Dept. annual Pre-Disaster Mitigation planning
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed. Garlinghouse Road Project was completed with assistance from Canandaigua Lake Watershed Council. Project has been very effective.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX P: TOWN OF NAPLES

<b>Previous Action Worksheet</b>	
<b>TN-2: Town Wide Roadway Stabilization Effort</b>	
<b>Name of Jurisdiction:</b>	Town of Naples
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Forest and vegetation management concerns, hillside, and road Stabilization.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Town Wide Roadway Stabilization Effort
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TN-2: Town Wide Roadway Stabilization Effort
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Acquire the services of a highway engineer to evaluate the existing roadways of the Town to provide recommendations and RFP'S for Mitigation Measures to preserve or improve the roadways – not currently being pursued due to lack of funding.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Seek out FEMA, NYS DEC & Army Corps of Engineers Grant funds to perform the desired evaluations. Cost of Plan 60 million.
<b>Estimated Cost:</b>	Loss of Roadways town wide - 80 million. Net savings if future plan is implemented – 20 million.
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2019
<b>Potential Fund Sources:</b>	FEMA, NYS DEC, Army Corps of Engineers grant opportunities
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Added to Highway Dept. Annual Pre-Disaster Mitigation Planning and Town Board annual Grant seeking.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed and Defer to Plan Update. On-going. The Highway Department has done a large amount of roadway stabilization over the past 9 years. This has been incorporated into road maintenance and reconstruction projects. Project has been very effective.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

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<b>Previous Action Worksheet</b>	
<b>TN-3: Flood zone outreach/education – brochure development and distribution</b>	
<b>Name of Jurisdiction:</b>	Town of Naples
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood Zone Development Losses
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Some recent development has occurred near flood zones and some future development is anticipated near or within flood zones - Flood regs and enforcement are important.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TN-3: Flood zone outreach/education – brochure development and distribution
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Create a flood zone brochure for homeowners within flood zones
<b>Summary of Evaluation Benefits (losses avoided):</b>	Would provide needed and helpful education to homeowners within flood zones on how to mitigate the effects of flooding. This would be completed once updated flood mapping is completed by FEMA for the Town of Naples.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Naples Planning Dept.
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	FEMA
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Added to the Planning Departments annual work plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX P: TOWN OF NAPLES

## NEW MITIGATION ACTIONS

TOWN OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	5.4	Flood	Town Wide Roadway Stabilization Effort: Forest and vegetation management concerns, hillside, and road stabilization. Excess sediment results in sedimentation of downstream stream reaches, reducing channel capacity and negatively impacting trout habitat and grounds. This project protects the community and reduces risk of flooding.	Continue to assess and implement recommended mitigation measures to preserve or improve the roadways.	No	Further review required	On-going	Town Board	Staff Time	Reduce risk of flood damages due to erosion or scour during flood events.	Local Department Budget	H	Safety/Security
2	4.1	Flood	Flood Zone Outreach Program: Recent developments have occurred near flood zones and some future development is anticipated near or within flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Create a flood zone brochure for homeowners within flood zones to ensure they are in proper regulations.	No	N/A	12 months	Town Planning Department	Staff Time	Reduces risk of flood damages to high-risk structures and prevent future losses in high-risk flood hazard areas; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget, Staff time	M	Communication



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TOWN OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
4	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX P: TOWN OF NAPLES

TOWN OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
5	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
6	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

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TOWN OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
7	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
8	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX P: TOWN OF NAPLES

TOWN OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
9	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
10	3.3	Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
11	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX P: TOWN OF NAPLES

TOWN OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
13	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX P: TOWN OF NAPLES

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Naples
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX P: TOWN OF NAPLES

COMMUNITY CAPABILITY CHECKLIST	Town of Naples
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	
Subdivision Regulations	X
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X



## ANNEX P: TOWN OF NAPLES

COMMUNITY CAPABILITY CHECKLIST	Town of Naples
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	X
Resource Development/ Grant Writer	



ANNEX Q  
**VILLAGE OF NAPLES**

# ANNEX Q: VILLAGE OF NAPLES

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## ANNEX Q: VILLAGE OF NAPLES

### JURISDICTION PROFILE

#### OVERVIEW

The Village of Naples is in Ontario County, New York with a population of just under 1,000. The village is part of the Town of Naples, known as an important grape-growing region. According to the United States Census Bureau, the village has a total area of 1.0 square miles, all land. New York State Route 21, New York State Route 53 and New York State Route 245 converge on the village, along with the County Roads 33 and 36. The town is southwest of Canandaigua Lake. Figure Q-1 shows the general location of the Village of Naples.

### VILLAGE OF NAPLES CONTACT INFORMATION

Name: Brian Schenk

Title: Mayor

Phone: (585) 374-2435

Address: 106 South Main Street, P.O. Box 535, Naples NY 14512

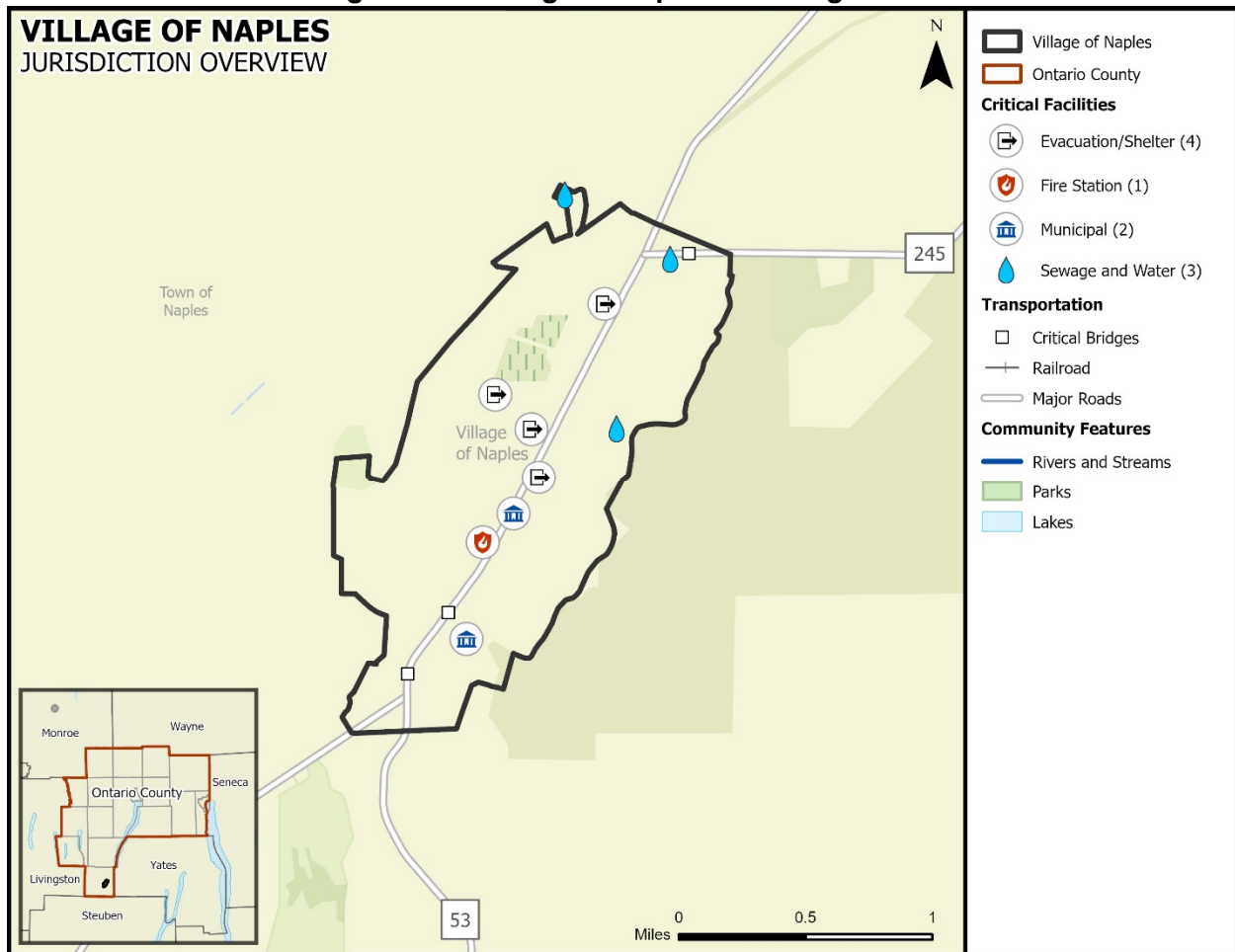
Email: [megan@naplesny.us](mailto:megan@naplesny.us)

#### NOTE TO THE REVIEWER

It is noted that the Village of Naples and the Town of Naples are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

# ANNEX Q: VILLAGE OF NAPLES

**Figure Q-1. Village of Naples Planning Area<sup>1</sup>**



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Village of Naples has an official population of 931 residents, a 10.6 percent decrease since the 2010 census. Table Q-1 summarizes select characteristics of vulnerable or sensitive populations in the Village of Naples using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>



## ANNEX Q: VILLAGE OF NAPLES

**Table Q-1. Population Distribution for the Village of Naples**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Village of Naples	1,041	864	-17	32	174	175

### POPULATION GROWTH

The official 2020 Village of Naples population is 931. Overall, the Village of Naples experienced a decrease in population between 1990 and 2020 of 24.7 percent, or a decrease by 306 residents. Between 2010 and 2020, the Village of Naples experienced a population decline. Table Q-2 provides historic change rates in the Village of Naples.

**Table Q-2. Population Growth for the Village of Naples, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Village of Naples	1,237	1,072	1,041	931	-306	-24.7	-110	-10.6

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Village of Naples might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table Q-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX Q: VILLAGE OF NAPLES

**Table Q-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table Q-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table Q-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Village of Naples	Mayor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Village of Naples' website. A total of five surveys were completed for the Village of Naples. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.



## ANNEX Q: VILLAGE OF NAPLES

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Village of Naples's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX Q: VILLAGE OF NAPLES

### HAZARD PROFILES

#### DAM FAILURE

The Village of Naples is not profiling dam failure. The Village of Naples does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX Q: VILLAGE OF NAPLES

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Village of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Naples can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Naples, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Village of Naples planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Village of Naples:

**Table Q-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

The population over 65 in the Village of Naples is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 206 potentially vulnerable residents in the Village of Naples based on age. In addition, an estimated 20 percent of the Village of Naples’ population live below the poverty level (Table Q-6).

**Table Q-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Naples	174	32	175

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX Q: VILLAGE OF NAPLES

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Village of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Naples can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Naples, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Naples planning team members identified the following critical facilities (Table Q-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Village of Naples:

**Table Q-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

The population over 65 in the Village of Naples is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 206 potentially vulnerable residents in the Village of Naples based on age. In addition, an estimated 20 percent of the Village of Naples’ population live below the poverty level (Table Q-8).

**Table Q-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Naples	174	32	175

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX Q: VILLAGE OF NAPLES

## EXTREME HEAT

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Village of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Village of Naples can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Village of Naples, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Naples planning team members identified the following critical facilities (Table Q-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Village of Naples:

**Table Q-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

The population over 65 in the Village of Naples is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 206 potentially vulnerable residents in the Village of Naples based on age. In addition, an estimated 20 percent of the Village of Naples’ population live below the poverty level (Table Q-10).

**Table Q-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Naples	174	32	175

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

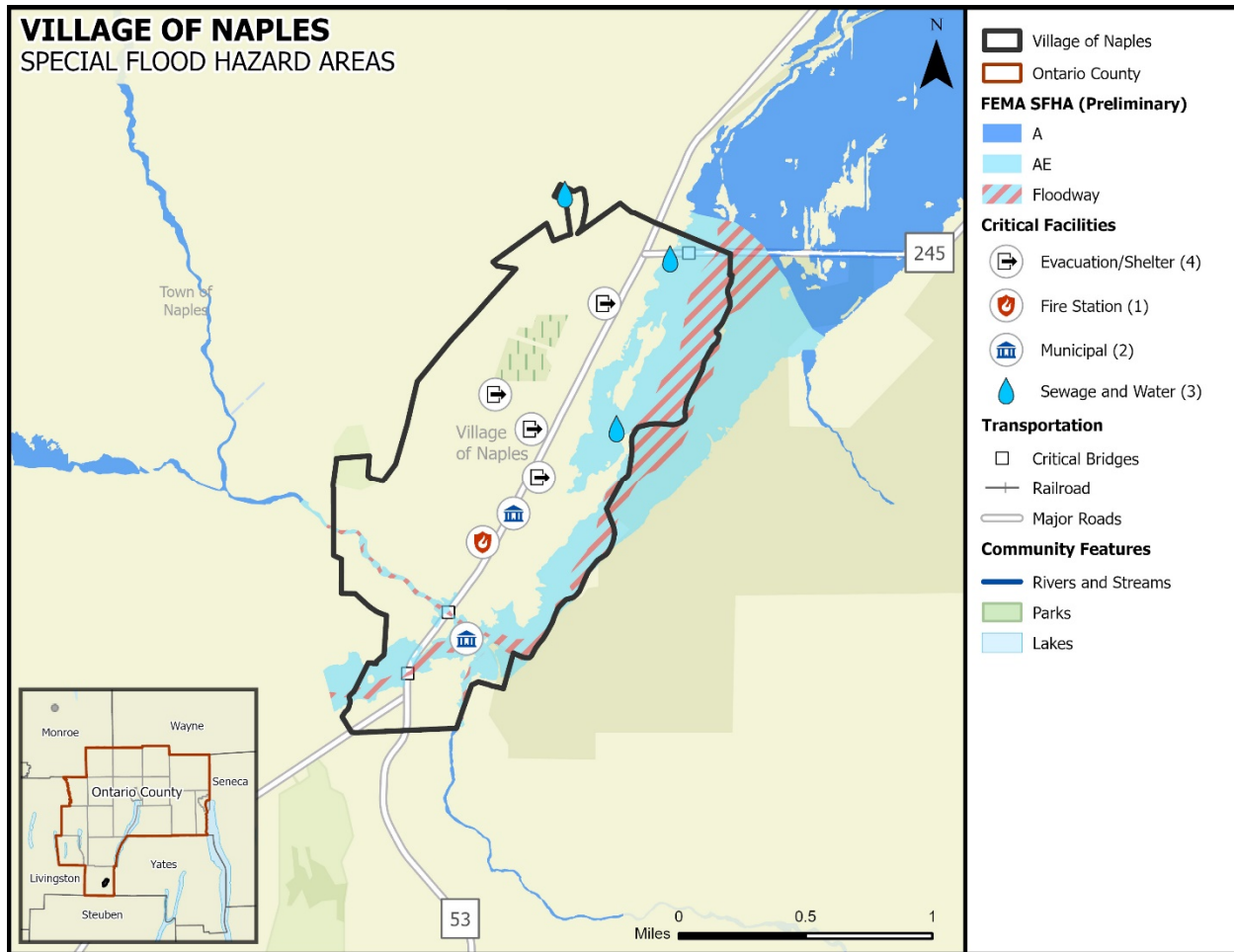
# ANNEX Q: VILLAGE OF NAPLES

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Village of Naples, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Village of Naples, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure Q-2.

**Figure Q-2. Estimated Flood Zones in the Village of Naples<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table Q-11 provides the historical occurrences of flood events for the Village of Naples according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, seven flood events were known to have impacted the Village of Naples, based upon NCEI records. Flood events are

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX Q: VILLAGE OF NAPLES

often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table Q-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Naples	5/12/2000	0	0	\$129,521	\$0
	5/20/2004	0	0	\$9,397,282	\$0
	5/22/2004	0	0	\$15,662	\$0
	9/30/2010	0	0	\$13,559	\$0
	5/16/2014	0	0	\$186,741	\$0
	6/14/2015	0	0	\$18,616	\$0
	10/29/2021	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$9,761,381</b>	<b>\$0</b>

Based on the list of historical flood events for the Village of Naples, one of the reported events has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Naples can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Naples planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table Q-12 includes the critical facilities in the Village of Naples located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in Section 9.

**Table Q-12. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Village of Naples	Village of Naples DPW	Municipal	1%
	Village Sewer Plant <sup>10</sup>	Sewage and Water	1%

Historic loss estimates due to flood are presented in Table Q-13 below.

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> WWTP is recently completed new construction. Mitigation not required.



## ANNEX Q: VILLAGE OF NAPLES

**Table Q-13. Potential Annualized Losses, 1996-2023<sup>11</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Naples	7	\$9,761,381	\$354,959

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Village of Naples' population live below the poverty level (Table Q-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table Q-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Naples	175

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table Q-15 depicts the level of impact for the Village of Naples.

**Table Q-15 Village of Naples Impact**

JURISDICTION	IMPACT	DESCRIPTION
Village of Naples	Limited	It is anticipated that the Village could anticipate an impact of "limited" with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Village of Naples currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Village of Naples has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Village of Naples as a high-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Village of Naples Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements

<sup>11</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX Q: VILLAGE OF NAPLES

- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table Q-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table Q-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Village of Naples	6/15/2016	2/25/2013	Good Standing	0

### *REPETITIVE LOSS*

The Village of Naples currently has no repetitive loss or severe repetitive loss properties.

## ANNEX Q: VILLAGE OF NAPLES

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence across the planning area demonstrates that the Village of Naples is vulnerable to hail events overall. However, no reported historical hail events have impacted the Village of Naples between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years.

#### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Naples can expect a hail event approximately once each year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Village of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table Q-17. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 18 manufactured homes are located in the Village of Naples (4 percent of total housing stock). In addition, 93 percent (approximately 422 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during hail events.

**Table Q-18. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Naples	422	18

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Village of Naples’ population live below the poverty level (Table Q-19).

## ANNEX Q: VILLAGE OF NAPLES

**Table Q-19. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Naples	175

Overall, the total loss estimate of property and crops in the Village of Naples is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Village of Naples can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table Q-20. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Naples	\$0	\$0

## ANNEX Q: VILLAGE OF NAPLES

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Village of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Naples can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Naples, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Naples planning team members identified the following critical facilities (Table Q-21) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Village of Naples:

**Table Q-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

The population over 65 in the Village of Naples is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 206 potentially vulnerable residents in the Village of Naples based on age. In addition, an estimated 20 percent of the Village of Naples’ population live below the poverty level (Table Q-22).

**Table Q-22. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Naples	174	32	175

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX Q: VILLAGE OF NAPLES

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Village of Naples is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Village of Naples over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Village of Naples.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX Q: VILLAGE OF NAPLES

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There has been one recorded lightning event in the Village of Naples from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

**Table Q-23. Historical Lightning Events, 1996-2023<sup>12</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Naples	8/8/2005	0	0	\$75,400	\$0
<b>TOTALS</b>		<b>0</b>	<b>0</b>	<b>\$75,400</b>	<b>\$0</b>

Based on the list of historical lightning events for the Village of Naples, there have been no reported events since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Village of Naples is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Village of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table Q-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

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<sup>12</sup> Historical events are reported from January 1996 through June 2023; values are in 2023 dollars.



## ANNEX Q: VILLAGE OF NAPLES

stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Village of Naples' population live below the poverty level (Table Q-25).

**Table Q-25. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Naples	175

Historical losses and damages as a result of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the total loss estimate for the Village of Naples (in 2023 dollars) is considered \$75,400 with an average annualized loss of \$2,742 (Table Q-26).

**Table Q-26. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Naples	\$75,400	\$2,742

## ANNEX Q: VILLAGE OF NAPLES

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Village of Naples, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Naples can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Naples, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Naples planning team members identified the following critical facilities (Table Q-27) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Village of Naples:

**Table Q-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

The population over 65 in the Village of Naples is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 206 potentially vulnerable residents in the Village of Naples based on age. In addition, an estimated 20 percent of the Village of Naples’ population live below the poverty level (Table Q-28).

**Table Q-28. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Naples	174	32	175

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

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### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Village of Naples. Historical tornado events are often provided on a countywide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

#### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Village of Naples can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Village of Naples is “Occasional”.

#### *VULNERABILITY AND IMPACT*

The Village of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table Q-29. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 18 manufactured homes are located in the Village of Naples (4 percent of total housing stock). In addition, 93 percent (approximately 422 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table Q-30. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Naples	422	18

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a

## ANNEX Q: VILLAGE OF NAPLES

long-term stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Village of Naples’s population live below the poverty level (Table Q-31).

**Table Q-31. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Naples	175

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Village of Naples would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table Q-32. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Village of Naples	\$0	\$0

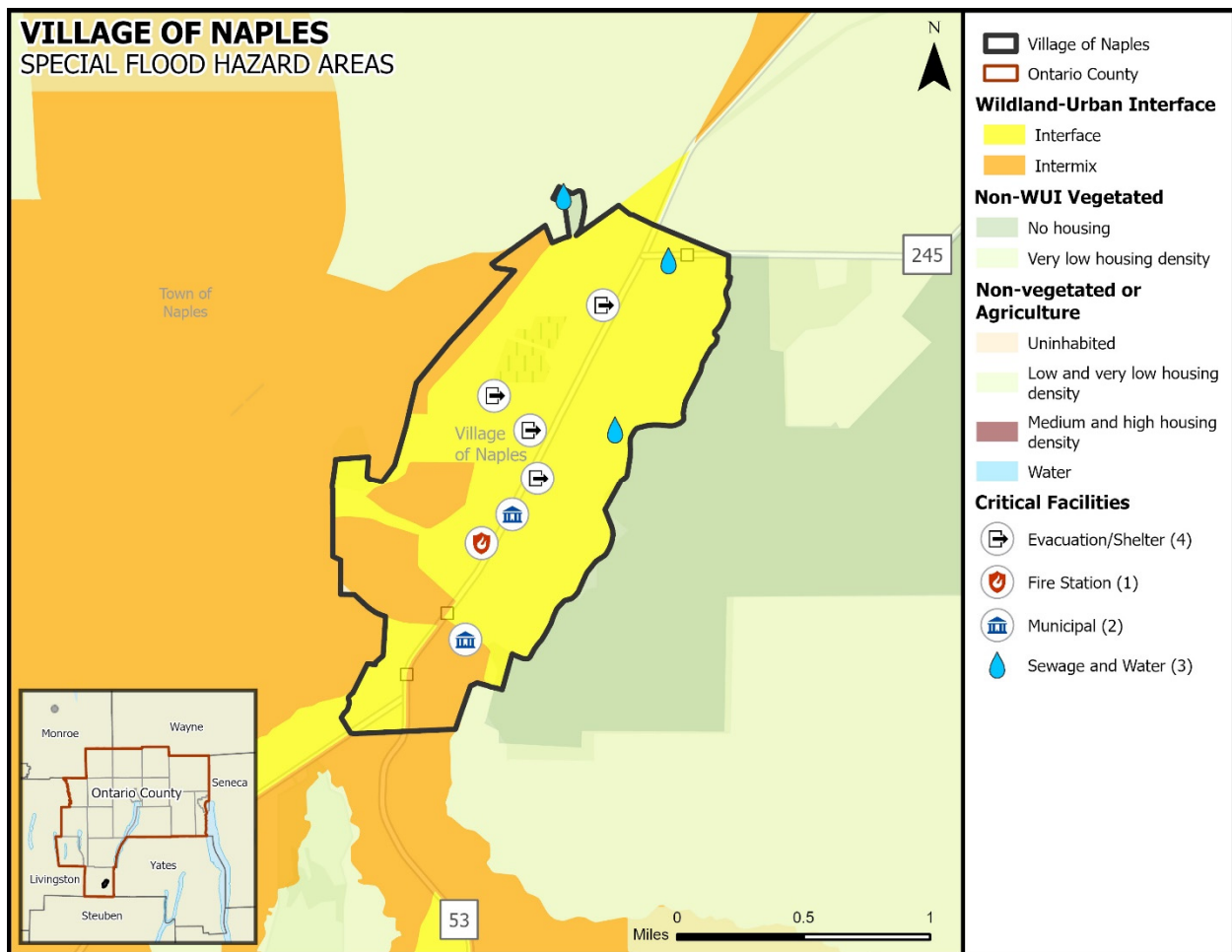
# ANNEX Q: VILLAGE OF NAPLES

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure Q-3). The Village of Naples planning area is considered at moderate risk for wildfires with many areas in the Village being in the WUI.

Figure Q-3. Village of Naples Wildland Urban Interface Map<sup>13</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing

<sup>13</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX Q: VILLAGE OF NAPLES

a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the Village of Naples, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

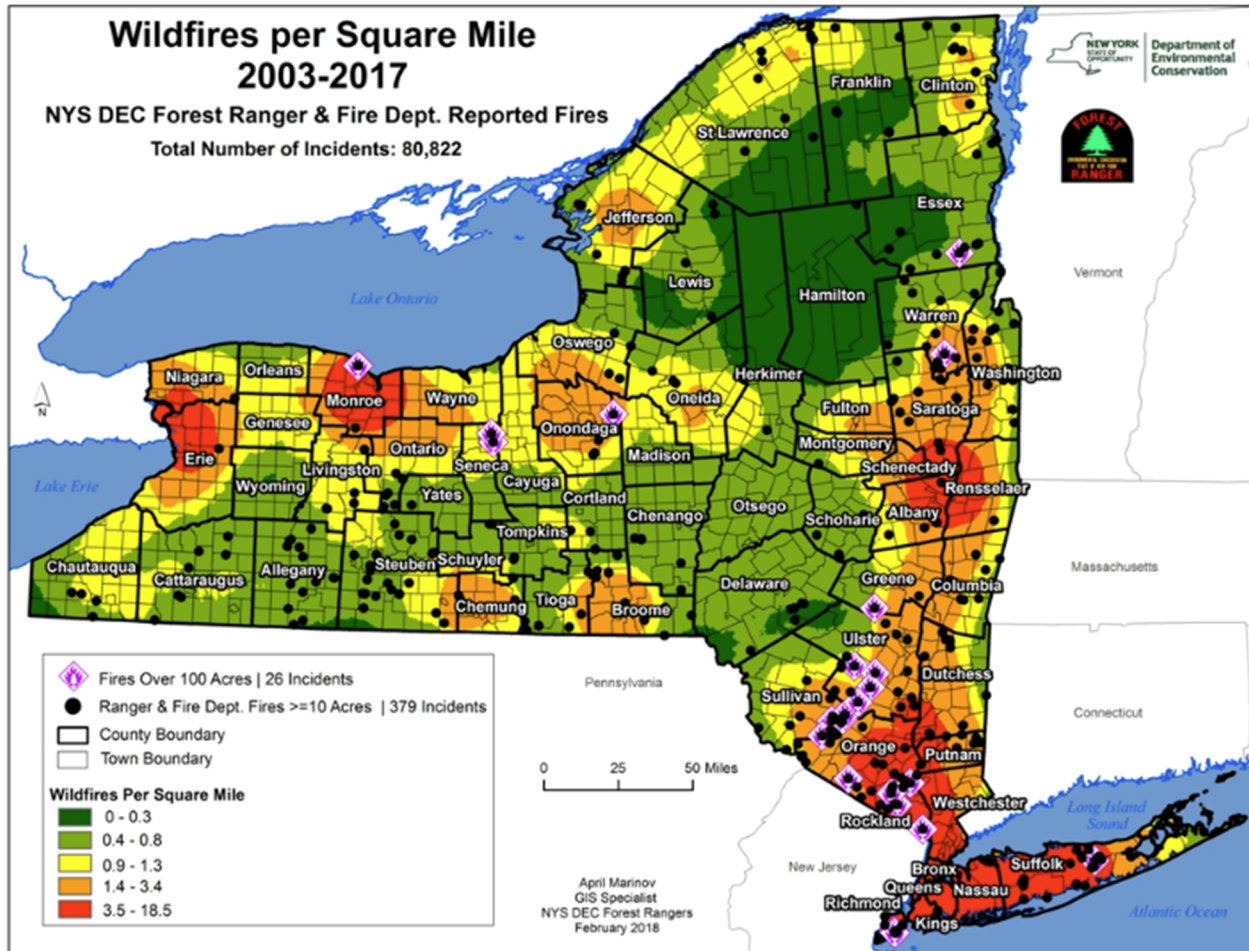
The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure Q-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Village of Naples planning area can anticipate limited future wildfire events, burning less than 10 acres.



## ANNEX Q: VILLAGE OF NAPLES

Figure Q-4. Wildfires per Square Mile, 2003-2017



### *HISTORICAL OCCURRENCES*

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

### *VULNERABILITY AND IMPACT*

The Village of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.



ANNEX Q: VILLAGE OF NAPLES

**Table Q-33. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

For the Village of Naples, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX Q: VILLAGE OF NAPLES

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, nine wind events are known to have occurred in the Village of Naples. Table Q-34 presents information on known historical events impacting the Village of Naples.

**Table Q-34. Historical Wind Events, 1968-2023<sup>14</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Naples	7/22/2002	50	0	0	\$16,445	\$0
	7/8/2007	50	0	0	\$14,219	\$0
	1/9/2008	50	0	0	\$14,031	\$0
	7/17/2008	52	0	0	\$33,661	\$0
	7/8/2014	55	0	0	\$12,431	\$0
	7/25/2016	50	0	0	\$18,462	\$0
	8/29/2022	51	0	0	\$2,188	\$0
	4/1/2023	51	0	0	\$2,056	\$0
	7/20/2023	51	0	0	\$514	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$114,007</b>	<b>\$0</b>

Based on the list of historical wind events for the Village of Naples, three of the reported events have occurred since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Naples can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Village of Naples planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

<sup>14</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX Q: VILLAGE OF NAPLES

**Table Q-35. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Naples	4 Evacuation Shelters, 1 Fire Station, 2 Municipal Buildings, 10 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 18 manufactured homes are located in the Village of Naples (4 percent of total housing stock). In addition, 93 percent (approximately 422 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during wind events.

**Table Q-36. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Naples	422	18

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 20 percent of the Village of Naples’ population live below the poverty level (Table Q-37).

**Table Q-37. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Naples	175

Impact of wind events experienced in the Village of Naples would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$114,007 damages (in 2023 dollars) in the Village of Naples due to wind events. The estimated average annual loss from a wind event is \$1,689.

**Table Q-38. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town and Village of Naples	\$114,007	\$1,689

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## ANNEX Q: VILLAGE OF NAPLES

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX Q: VILLAGE OF NAPLES

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b> <b>VN-1: DPW Building Re-location</b>	
<b>Name of Jurisdiction:</b>	Village of Naples
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood risk to some critical facilities - Village of Naples DPW - In 500 yr. Flood Zone; Water Supply Structure (Middlesex Rd.) - In Flood Zone; Water Supply Structure (Mount Pleasant St.) - Potential Flood Risk; Treatment plant is affected by heavy rain events; Spring boxes have potential for contamination, have been affected by heavy rain events.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Re-Location of the DPW Building Outside of the 500-year flood zone on other Village lands. Purchase lands surrounding the Village Spring Boxes.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VN-1: DPW building re-location out of flood zone & bordering land
<b>Name of Action or Project:</b>	purchases around spring box locations
<b>Action or Project Description:</b>	Budget funds to re-locate DPW building, and budget funds to purchase bordering lands around current spring box locations – not currently being pursued due to lack of funds.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Current Village Barn replacement cost including equipment in the event of a catastrophic flood event – 1.5 million. Cost to Construct a new DPW Building on lands currently owned by the Village outside of a flood zone – 750K. Loss prevention of approx... 750K.
<b>Estimated Cost:</b>	500K to clean up contaminated spring box in the event of a catastrophic flood event -500K. Cost to purchase bordering lands around spring box locations to prevent the effects of erosion- less than 500K. Net savings of at least 10K.
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	By 2023 identification of location for new DPW building
<b>Potential Fund Sources:</b>	FEMA, NYS
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Added to the Pre-Disaster Mitigation planning of the DPW and Village Board
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	Defer to Plan Update. In-progress. By 2030 identification of local for new DPW Building.
<b>Evaluation of Effectiveness:</b>	

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<b>Previous Action Worksheet</b>	
<b>VN-2: Naples Creek &amp; Grimes Creek improvements</b>	
<b>Name of Jurisdiction:</b>	Village of Naples
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Sediment and erosion control concerns - tree trimming; stream corridor restoration/streambank stabilization.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Naples Creek & Grimes Creek Stabilization, log jam removal & dredging.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VN-2: Naples Creek & Grimes Creek improvements - stabilization, log jam removal & dredging
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Request permission and receive permits from NYS DEC, FEMA, and the Army Corps of Engineers to remove existing log jams, perform dredging in need areas (bridges) and add stream bank stabilization to mitigate the effects of flooding. These actions are currently not being attempted due to lack of funds and inability to receive permits from state and federal agencies to perform such activities, as both watercourses are protected due to the native trout population.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Log jam removal, stream bank stabilization, and dredging underneath bridges would mitigate the effects of flooding and greatly reduce losses incurred on residential properties and roadways throughout the Village.
<b>Estimated Cost:</b>	Cost: \$75,000
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board of Trustees, Ontario County SWCD
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	10 years for complete project, by 2023 have permits and action plan in place
<b>Potential Fund Sources:</b>	FEMA, NYS DEC, & Army Corps. Of Engineers grants
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Village long-term plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update. In-progress. Small areas of the stream have been continually addressed as required.

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<b>Previous Action Worksheet</b>	
<b>VN-3: Flood risk awareness - flood zone brochure creation and distribution</b>	
<b>Name of Jurisdiction:</b>	Village of Naples
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Some recent development has occurred near flood zones and some future development is anticipated near or within flood zones - Flood regs and enforcement are important.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Flood Zone Brochure
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VN-3: Flood risk awareness - flood zone brochure creation and distribution
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Provide a Flood Plain Educational Brochure to Citizens.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Would provide needed and helpful education to homeowners within flood zones on how to mitigate the effects of flooding. This would be completed once updated flood mapping is completed by FEMA for the Village of Naples. \$5,000 for production and distribution of brochure
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village of Naples Planning Department
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	FEMA Grant Funding <a href="https://www.fema.gov/grants">https://www.fema.gov/grants</a>
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Added to the Planning Department work program
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. In-progress. Waiting on new FEMA mapping to produce current Flood Risk Awareness Brochure.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	



# ANNEX Q: VILLAGE OF NAPLES

## NEW MITIGATION ACTIONS

VILLAGE OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Landslide, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Generator at critical facilities: During power outages critical facilities would be without lights, communications, and maintenance equipment/machinery. The operations are basically bought to a halt. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Assessment of critical facilities. Based on assessment acquire and install a permanent generator at designated sites.	Yes	Further review required	24 months	Village Board and Public Works	\$1,000,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Energy)
2	3.3	Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Standard for burial of utility lines: Due to the experience of utility failure, would need to explore alternative ways to protect power lines and utility service infrastructure. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Require standards for burial of electrical, telephone, cable lines and other utilities in new developments.	No	Further review required	24 months	Village Board and Code Enforcement	Staff Time	Reduce damages to infrastructure; Ensure continuity of critical services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget	H	Energy (Power/Energy)

# ANNEX Q: VILLAGE OF NAPLES

VILLAGE OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	4.2	Flood	Feasibility Study for the Relocation of Village of Naples DPW Municipal Highway Building located at 8 Mark Circle, Naples, NY 14512: There is potential flood risk as location is near (or within) flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Village of Naples will complete a feasibility study for the Public Works Municipal Highway Building to identify the current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the structure to the 0.2% flood level.	Yes	Further review required	2030	Village Board	Cost determined by feasibility assessment	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function and continuity of operations and critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
4	2.3	Flood	Naples Creek & Grimes Creek improvements: Sediment and erosion control concerns. This erosion and sedimentation results in sedimentation of downstream stream reaches, reducing channel capacity and negatively impacting trout habitat and spawning grounds. This project protects the community and reduces risk of flooding.	Request permission and receive permits from NYS DEC, FEMA, and the Army Corps of Engineers to remove existing log jams, perform dredging in need areas (bridges) and add stream bank stabilization to mitigate the effects of flooding. These actions are currently not being attempted due to lack of funds and inability to receive permits form state and federal agencies to perform such activities, as both watercourses are protected due to the native trout population.	No	N/A	12 -24 months	Village Board and SWCD	\$100,000	Reduces risk of flood damages to high-risk structures and prevent future losses in high-risk flood hazard areas; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security

# ANNEX Q: VILLAGE OF NAPLES

VILLAGE OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
5	4.1	Flood	Flood Zone Outreach Program: Recent developments have occurred near flood zones and some future development is anticipated near or within flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Once new FEMA maps are available, create a flood zone brochure for homeowners within flood zones to ensure they are in proper regulations.	No	N/A	12 months	Village Planning Department	Staff Time	Reduces risk of flood damages to high-risk structures and prevent future losses in high-risk flood hazard areas; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget, Staff time	M	Communication
6	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
7	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warning	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX Q: VILLAGE OF NAPLES

VILLAGE OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.									
8	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX Q: VILLAGE OF NAPLES

VILLAGE OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
11	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Village Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX Q: VILLAGE OF NAPLES

VILLAGE OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Village Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
13	3.3	Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Village Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
14	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Village Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX Q: VILLAGE OF NAPLES

VILLAGE OF NAPLES PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
15	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Village Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Village Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
17	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Village Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication



## ANNEX Q: VILLAGE OF NAPLES

### CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Village of Naples
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	X
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX Q: VILLAGE OF NAPLES

COMMUNITY CAPABILITY CHECKLIST	Village of Naples
Fire Codes	
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX Q: VILLAGE OF NAPLES

COMMUNITY CAPABILITY CHECKLIST	Village of Naples
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	X
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	

Ontario  
County  
NEW YORK



PHELPS  
TOWNHALL  
1849

ANNEX R  
TOWN OF PHELPS

# ANNEX R: TOWN OF PHELPS

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## ANNEX R: TOWN OF PHELPS

### JURISDICTION PROFILE

#### OVERVIEW

The Town of Phelps is in Ontario County, New York with a population of just over 6,600. The Town contains the Village of Phelps and is north of Geneva. According to the United States Census Bureau, the town has a total area of 65.3 square miles of which 65.0 square miles is land and .3 square mile is water. The eastern town line is the border of Seneca County, and the northern town line is the border of Wayne County. Figure R-1 shows the general location of the Town of Phelps.

### TOWN OF PHELPS CONTACT INFORMATION

Name: Norm Teed

Title: Town Supervisor

Phone: (315) 548-5691, ext. 302

Address: 79 Main Street, Phelps NY 14532

Email: [super@phelpsny.com](mailto:super@phelpsny.com)

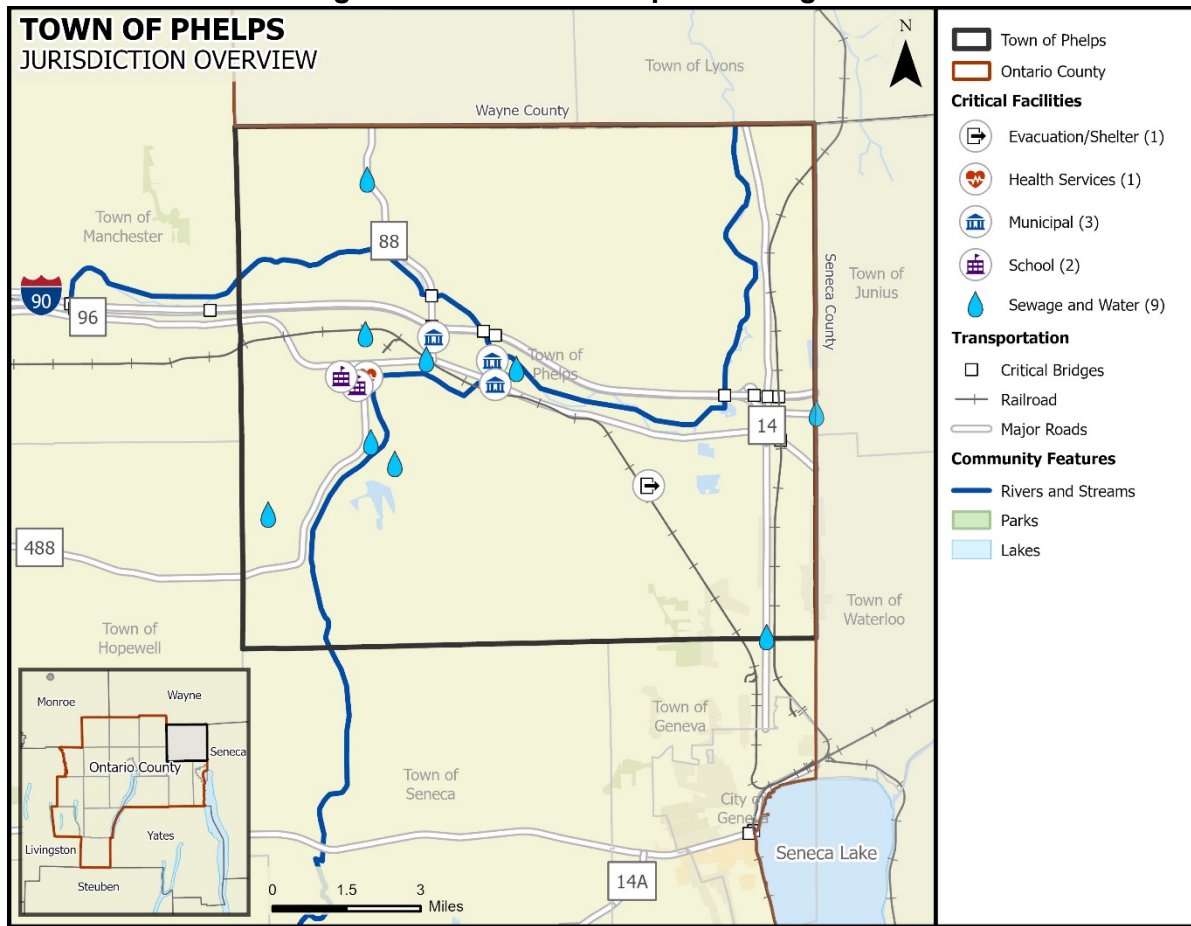
### NOTE TO THE REVIEWER

It is noted that the Town of Phelps and the Village of Phelps are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.



# ANNEX R: TOWN OF PHELPS

**Figure R-1. Town of Phelps Planning Area<sup>1</sup>**



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Phelps has an official population of 6,637 residents, a 6.2 percent decrease since the 2010 census. Table R-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Phelps using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>



## ANNEX R: TOWN OF PHELPS

**Table R-1. Population Distribution for the Town of Phelps**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Phelps	7,072	6,733	-4.79%	445	1,203	572

### POPULATION GROWTH

The official 2020 Town of Phelps population is 6,637. Overall, the Town of Phelps experienced a decrease in population between 1990 and 2020 of 1.7 percent, or a decrease by 122 residents. Between 2010 and 2020, the Town of Phelps experienced a population decline. Table R-2 provides historic change rates in the Town of Phelps.

**Table R-2. Population Growth for the Town of Phelps, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Phelps	6,749	7,017	7,072	6,637	-122	-1.7%	-435	-6.2%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Phelps might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table R-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

# ANNEX R: TOWN OF PHELPS

**Table R-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

## PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table R-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table R-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Phelps	Town Supervisor

## PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Phelps’s website. A total of eight surveys were completed for the Town of Phelps. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX R: TOWN OF PHELPS

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Phelps's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX R: TOWN OF PHELPS

### HAZARD PROFILES

#### DAM FAILURE

The Town of Phelps is not profiling dam failure. The Town of Phelps does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

## ANNEX R: TOWN OF PHELPS

### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Phelps can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Phelps, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Phelps planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Town of Phelps:

**Table R-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

The population over 65 in the Town of Phelps is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 1,648 potentially vulnerable residents in the Town of Phelps based on age. In addition, an estimated 9 percent of the Town of Phelps’ population live below the poverty level (Table R-6).

**Table R-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Phelps	1,203	445	572

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and

## ANNEX R: TOWN OF PHELPS

livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX R: TOWN OF PHELPS

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Phelps can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Phelps, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Phelps planning team members identified the following critical facilities (Table R-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Town of Phelps:

**Table R-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

The population over 65 in the Town of Phelps is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 1,648 potentially vulnerable residents in the Town of Phelps based on age. In addition, an estimated 9 percent of the Town of Phelps’ population live below the poverty level (Table R-8).

**Table R-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Phelps	1,203	445	572

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.



## ANNEX R: TOWN OF PHELPS

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Phelps can expect to experience an extreme heat event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Phelps, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Phelps planning team members identified the following critical facilities (Table R-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Town of Phelps:

**Table R-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

The population over 65 in the Town of Phelps is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 1,648 potentially vulnerable residents in the Town of Phelps based on age. In addition, an estimated 9 percent of the Town of Phelps’ population live below the poverty level (Table R-10).

**Table R-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Phelps	1,203	445	572

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

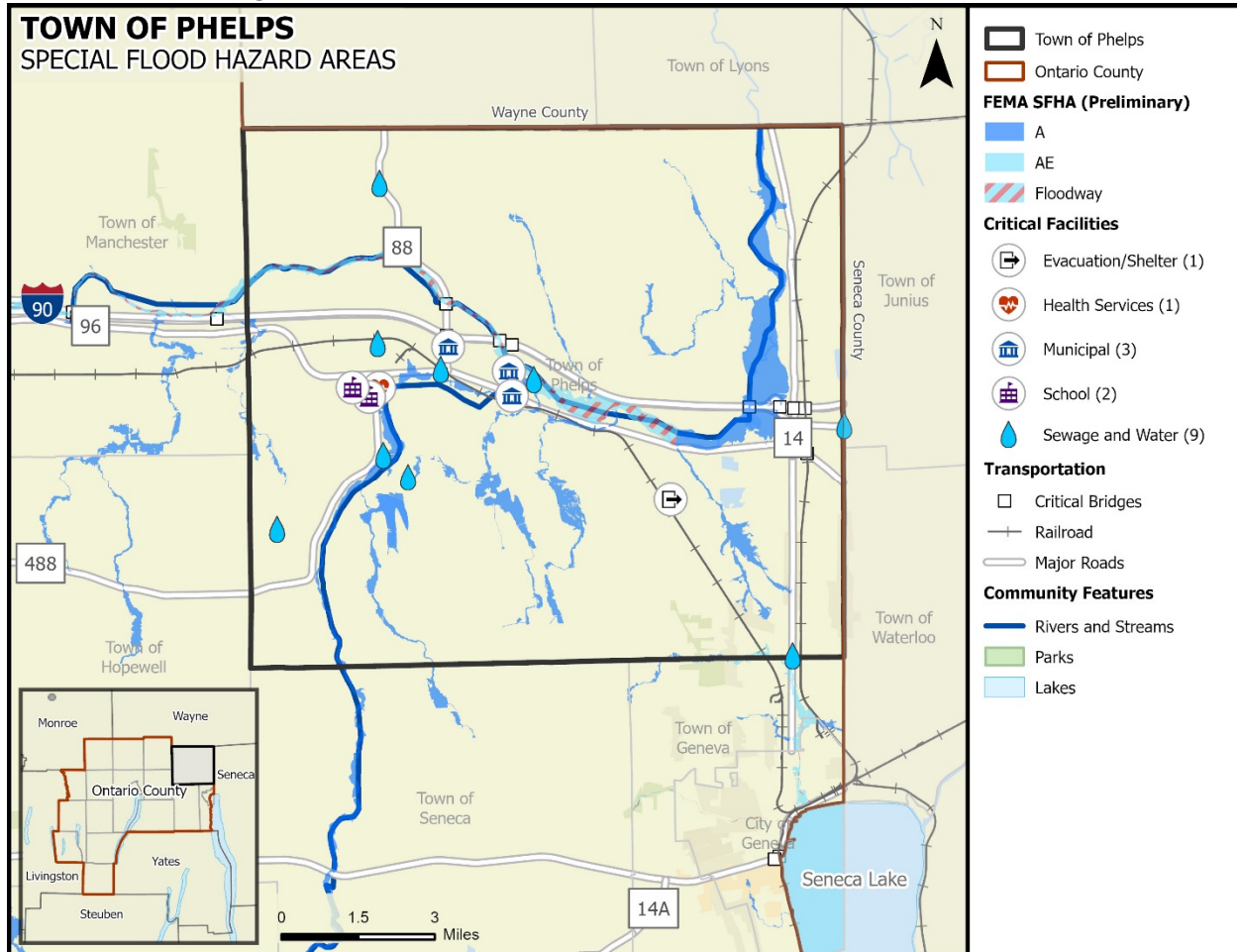
# ANNEX R: TOWN OF PHELPS

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Phelps, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Phelps, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure R-2.

**Figure R-2. Estimated Flood Zones in the Town of Phelps<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table R-11 provides the historical occurrences of flood events for the Town of Phelps according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, three flood events were known to have impacted the Town of Phelps, based upon NCEI records. Flood events are

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX R: TOWN OF PHELPS

often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table R-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	8/3/2001	0	0	\$66,743	\$0
	5/29/2002	0	0	\$411,806	\$0
	10/26/2021	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$478,549</b>	<b>\$0</b>

Based on the list of historical flood events for the Town of Phelps, one of the reported events has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Phelps can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Phelps planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table R-12 includes the critical facilities in the Town of Phelps located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in Section 9.

**Table R-12. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Town of Phelps	Sewage Treatment Plant	Utility	1%

Historic loss estimates due to flood are presented in Table R-13 below.

**Table R-13. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town and Village of Phelps	3	\$478,549	\$17,402

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX R: TOWN OF PHELPS

stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Phelps' population live below the poverty level (Table R-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table R-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Phelps	572

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table R-15 depicts the level of impact for the Town of Phelps.

**Table R-15 Town of Phelps Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Phelps	Limited	It is anticipated that the Town could anticipate an impact of "limited" with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Phelps currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Phelps has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Phelps as a low-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Phelps Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

## ANNEX R: TOWN OF PHELPS

Table R-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table R-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Phelps	1/31/2018	N/A	Good Standing	0

### *REPETITIVE LOSS*

The Town of Phelps currently has no repetitive loss or severe repetitive loss properties.





## ANNEX R: TOWN OF PHELPS

**Table R-17. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	5/29/2012	0.88	0	0	\$0	\$0
	5/18/2017	1.25	0	0	\$0	\$0
	5/30/2017	1	0	0	\$0	\$0
<b>TOTALS</b>	-	<b>1.25 (Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>

Based on the list of historical hail events for the Town of Phelps, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Phelps can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table R-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 133 manufactured homes are located in the Town of Phelps (5 percent of total housing stock). In addition, 79 percent (approximately 2,304 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during hail events.

**Table R-19. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Phelps	2,304	133

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.



## ANNEX R: TOWN OF PHELPS

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Phelps' population live below the poverty level (Table R-20).

**Table R-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Phelps	572

Overall, the total loss estimate of property and crops in the Town of Phelps is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Town of Phelps can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table R-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Phelps	\$0	\$0

## ANNEX R: TOWN OF PHELPS

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Phelps can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Phelps, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Phelps planning team members identified the following critical facilities (Table R-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Town of Phelps:

**Table R-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

The population over 65 in the Town of Phelps is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 1,648 potentially vulnerable residents in the Town of Phelps based on age. In addition, an estimated 9 percent of the Town of Phelps’ population live below the poverty level (Table R-23).

**Table R-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Phelps	1,203	445	572

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX R: TOWN OF PHELPS

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of Phelps is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Phelps over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Phelps.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX R: TOWN OF PHELPS

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There has been one recorded lightning event in the Town of Phelps from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

**Table R-24. Historical Lightning Events, 1996-2023<sup>13</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Phelps	7/4/2001	0	3	\$0	\$0
<b>TOTALS</b>		<b>0</b>	<b>3</b>	<b>\$0</b>	<b>\$0</b>

Based on the list of historical lightning events for the Town of Phelps, there have been no reported events since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Phelps is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Town of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table R-25. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>13</sup> Historical events are reported from January 1996 through June 2023; values are in 2023 dollars.

## ANNEX R: TOWN OF PHELPS

stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Phelps' population live below the poverty level (Table R-26).

**Table R-26. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Phelps	572

Historical losses and damages as a result of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the total loss estimate for the Town of Phelps (in 2023 dollars) is considered \$0 with an average annualized loss of \$0 (Table R-27).

**Table R-27. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Phelps	\$0	\$0

## ANNEX R: TOWN OF PHELPS

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Phelps can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Phelps, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Phelps planning team members identified the following critical facilities (Table R-28) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Town of Phelps:

**Table R-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

The population over 65 in the Town of Phelps is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 7 percent, or an estimated total of 1,648 potentially vulnerable residents in the Town of Phelps based on age. In addition, an estimated 9 percent of the Town of Phelps’ population live below the poverty level (Table R-29).

**Table R-29. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Phelps	1,203	445	572

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX R: TOWN OF PHELPS

### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Town of Phelps. Historical tornado events are often provided on a countywide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

#### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Phelps can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Town of Phelps is “Occasional”.

#### *VULNERABILITY AND IMPACT*

The Town of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table R-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 133 manufactured homes are located in the Town of Phelps (5 percent of total housing stock). In addition, 79 percent (approximately 2,304 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table R-31. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Phelps	2,304	133



## ANNEX R: TOWN OF PHELPS

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Phelps' population live below the poverty level (Table R-32).

**Table R-32. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Phelps	572

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Town of Phelps would be considered "Limited", with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table R-33. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Phelps	\$0	\$0

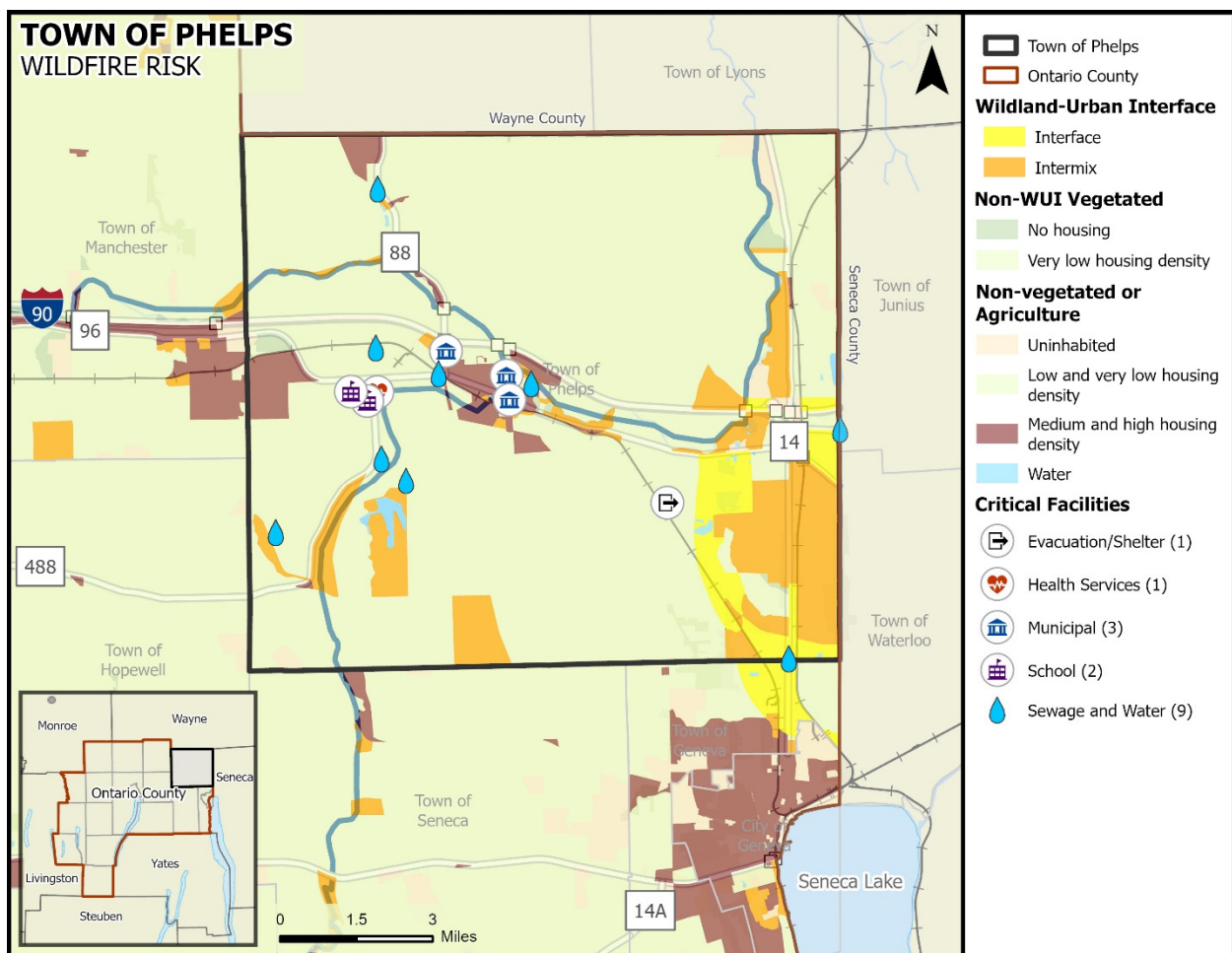
# ANNEX R: TOWN OF PHELPS

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure R-4). The Town of Phelps planning area is considered at low risk for wildfires with limited WUI areas.

**Figure R-4. Town of Phelps Wildland Urban Interface Map<sup>14</sup>**



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>14</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX R: TOWN OF PHELPS

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Phelps, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

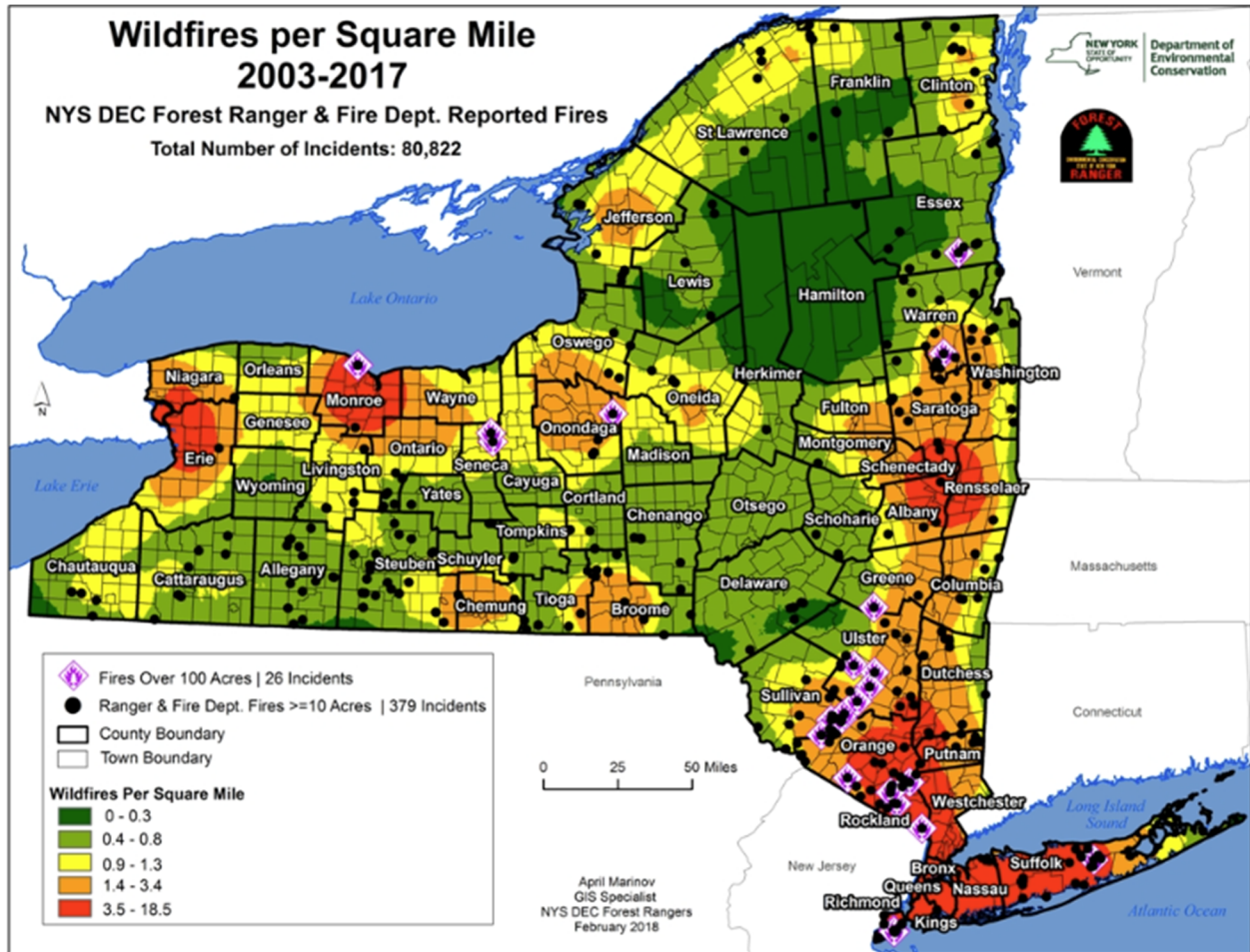
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure R-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Town of Phelps planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX R: TOWN OF PHELPS

Figure R-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.

## ANNEX R: TOWN OF PHELPS

**Table R-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

For the Town of Phelps, the impact from a wildfire event can be considered "Limited", meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX R: TOWN OF PHELPS

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, 26 wind events are known to have occurred in the Town of Phelps. Table R-35 presents information on known historical events impacting the Town of Phelps.

**Table R-35. Historical Wind Events, 1968-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	7/26/1994	Unknown	0	0	\$9,979	\$0
	7/6/1995	Unknown	0	0	\$38,842	\$0
	6/30/1998	Unknown	0	0	\$18,170	\$0
	11/6/2005	50	0	0	\$22,483	\$0
	6/21/2007	50	0	0	\$17,058	\$0
	1/9/2008	50	0	0	\$11,225	\$0
	4/26/2008	50	0	0	\$13,787	\$0
	7/21/2008	50	0	0	\$20,197	\$0
	7/26/2009	51	0	0	\$24,755	\$0
	8/16/2010	50	0	0	\$13,566	\$0
	5/29/2011	51	0	0	\$10,486	\$0
	5/29/2012	50	0	0	\$12,887	\$12,887
	5/13/2014	50	0	0	\$12,449	\$0
	6/24/2014	50	0	0	\$18,639	\$0
	6/24/2014	60	2	0	\$43,492	\$0
	6/10/2015	52	0	0	\$31,027	\$0
	6/23/2015	50	0	0	\$12,411	\$0
	8/13/2016	50	0	0	\$12,297	\$0
	8/13/2016	50	0	0	\$12,297	\$0
	10/15/2017	50	0	0	\$18,011	\$0
	8/8/2019	50	0	0	\$577	\$0
	8/18/2019	50	0	0	\$2,309	\$0

<sup>15</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.



## ANNEX R: TOWN OF PHELPS

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
	7/29/2020	51	0	0	\$2,286	\$0
	7/20/2021	51	0	0	\$542	\$0
	8/29/2022	51	0	0	\$2,188	\$0
	9/22/2022	51	0	0	\$2,188	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>2</b>	<b>0</b>	<b>\$384,148</b>	<b>\$12,887</b>

Based on the list of historical wind events for the Town of Phelps, six of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Phelps can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table R-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Phelps	1 Recreation Facility/Park, 1 Evacuation Shelter, 2 Fire Stations, 1 Health Services Facility, 3 Municipal Buildings, 1 Residential Community Facility, 3 Schools, 9 Sewage and Water Facilities, 11 Bridges

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 133 manufactured homes are located in the Town of Phelps (5 percent of total housing stock). In addition, 79 percent (approximately 2,304 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during wind events.

**Table R-37. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Phelps	2,304	133

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 9 percent of the Town of Phelps’ population live below the poverty level (Table R-38).



## ANNEX R: TOWN OF PHELPS

**Table R-38. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Phelps	572

Impact of wind events experienced in the Town of Phelps would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. However, with two fatalities, the impact is considered “major” with multiple injuries possible depending on the severity of the event. Over the 67.5-year reporting period there has been a total of \$397,035 damages (in 2023 dollars) in the Town of Phelps due to wind events. The estimated average annual loss from a wind event is \$5,882.

**Table R-39. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town & Village of Phelps	\$397,035	\$5,882

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX R: TOWN OF PHELPS

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TP-1: Drainage improvements aimed at protecting critical facilities</b>	
<b>Name of Jurisdiction:</b>	Town of Phelps
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood risk to some critical facilities - Town of Phelps Highway Dept. - In Flood Zone; Sewage Treatment Plant Structure - In Flood Zone. Floods have damaged roads in the past (Fisher and Gifford Rds. for example)
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	The Village owns the Sewage plant. We would need to build up the roads and make better drainage and provide protection from a 500yr flood event
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TP-1: Drainage improvements aimed at protecting critical facilities
<b>Name of Action or Project:</b>	TP-1: Drainage improvements aimed at protecting critical facilities
<b>Action or Project Description:</b>	Drainage improvements for The Town of Phelps. Improve roads and drainage.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Protection of roads and critical facilities from damage related to a 500-yr. flood event.
<b>Estimated Cost:</b>	Actual Cost TBD
<b>Other Factors Considered:</b>	Minor road repairs (e.g.) culverts - \$20,000 Major Projects requiring road replacement/realignment upwards of \$1,000,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Phelps Highway Dept.
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	USDA
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Town Comprehensive Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	Completed. A new Highway / Water Garage was built in 2015 and 2016.
<b>Evaluation of Effectiveness:</b>	

## ANNEX R: TOWN OF PHELPS

<b>Previous Action Worksheet</b>	
<b>TP-2: Increased drainage for new development areas near flood zone</b>	
<b>Name of Jurisdiction:</b>	Town of Phelps
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Some future development is anticipated near or within flood zones.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Continue to implement improvements to drainage facilities throughout the Town of Phelps
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TP-2: Increased drainage for new development areas near flood zone
<b>Name of Action or Project:</b>	zone
<b>Action or Project Description:</b>	Flood Zone development - build up area of low wetland within means of the DEC and install drainage for and around areas.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Actual Cost TBD
<b>Estimated Cost:</b>	Minor drainage improvements (e.g., minor regrading) - \$20,000
<b>Other Factors Considered:</b>	More significant projects requiring land acquisition, permitting and large-scale earthwork - \$1,000,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	USDA
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Town Comprehensive Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Defer to Plan Update. On-going. This will always be a work in process to continue to implement improvements to drainage facilities throughout the Town of Phelps. Update name of action to reflect: Increased drainage for new development areas near flood zone according to the rules and regulations in the 2020 IEC Residential and Building Codes and development must be approved. Update action description to reflect: Installation of drainage is done per project according to rules and regulations of all necessary departments involved (DEC, Code, Zoning, County, etc.). Update cost to reflect: Minor drainage improvements (e.g., minor regrading) - \$50,000+; More significant projects requiring land acquisition, permitting and large-scale earthwork - \$1,000,000+

## ANNEX R: TOWN OF PHELPS

<b>Previous Action Worksheet</b>	
<b>TP-3: Create a town drainage plan</b>	
<b>Name of Jurisdiction:</b>	Town of Phelps
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Concerned about drainage and runoff - drainage districts.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Creation of a Townwide drainage plan that assesses flood risks and establishes strategy to mitigate and provide 500yr flood events protection for critical facilities.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TP-3
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Create a town drainage plan
<b>Summary of Evaluation Benefits (losses avoided):</b>	
<b>Estimated Cost:</b>	\$100,000
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	USDA
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Town Comprehensive Plan Amendment
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Completed and Defer to Plan Update. On-going. Multiple Box Culverts have been installed in problem areas previously reported in Action Worksheets – Fisher Road, box culvert 2017/2018 and Gifford Rd is planned in the future. Other Box culverts were installed, and new drainage is installed during road repairs and road rebuilds. Update action summary to reflect: Drainage is to be considered and evaluated for every project, so flood risks related to 500yr flood events are considered for critical facilities. Drainage is evaluated in every project, involve all departments and agencies needed.

## ANNEX R: TOWN OF PHELPS

<b>Previous Action Worksheet</b>	
<b>TP-4: Smoke detector plan</b>	
<b>Name of Jurisdiction:</b>	Town of Phelps
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Fire safety is a concern.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Ongoing programs to ensure there are adequate smoke detectors.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TP-4: Smoke detector plan/programs
<b>Name of Action or Project:</b>	TP-4: Smoke detector plan/programs
<b>Action or Project Description:</b>	Smoke detector plan - The fire departments are currently doing smoke detector programs.
<b>Summary of Evaluation Benefits (losses avoided):</b>	\$40-\$5,000
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Phelps Fire Department
<b>Action/Project Priority:</b>	Low
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	FASNY <a href="http://www.fasny.com/">http://www.fasny.com/</a>
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Fire Protection Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. On-going. Update action titles to reflect: "Fire Safety". Update action/project consideration to reflect: To expand water districts throughout the Town of Phelps for better fire coverage and better water for our residents. Update action description to reflect: Keep expanding water districts and a bulk water station at the corners of State Route 14 and Cross Road. Update summary of evaluation to reflect: Clean and safe water for the residents. Bulk water station benefits fire departments, residents with wells and nonresidents passing through with campers and water needs. Update responsible organizations to reflect: Phelps Fire Department, Clifton Springs Fire Department, Oaks Corners Fire Departments. Update funding sources to reflect: USDA grants and low interest loans.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX R: TOWN OF PHELPS

<b>Previous Action Worksheet</b>	
<b>TP-5: Create an erosion control plan for evaluation and regulation</b>	
<b>Name of Jurisdiction:</b>	Town of Phelps
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Concerned about sediment and erosion control for new development.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	The planning board put in the code that they would have to evaluate each site before, during and after to regulate clear cutting, and erosion control.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TP-5: Create an erosion control plan for evaluation and regulation
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Create an erosion control strategy for evaluating development proposal to minimize erosion and properly manage runoff post development.
<b>Summary of Evaluation Benefits (losses avoided):</b>	
<b>Estimated Cost:</b>	\$50,000
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Planning Board with support from Ontario County SWCD
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	USDA
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	NA
<b>2024 ANALYSIS</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Completed. In 2014, Town's Code Book, Section 93.

# ANNEX R: TOWN OF PHELPS

## NEW MITIGATION ACTIONS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Weatherization/Storm Readiness: Tree maintenance is a priority and a plan to address continued maintenance to reduce risk of further damage will need to be developed and implemented. This project protects infrastructure, reduces cost of repairation, and prevents injury to residents.	Trim trees near public right-of ways and utility lines to reduce falling limbs during sever weather events	No	Further review required	12 - 24 months	Town Highway Department	\$25,000 (annually)	Reduce damages to infrastructure; Ensure continuity of services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
2	1.2	Extreme Cold, Flood, Snow, Storm, Tornado, Wildfire	Emergency Notification System: The general public may not have the means to access educational material or notification alerts. By considering an area wide notification system ensures community members are aware of risk. This project promotes public safety.	Enhance community awareness / alertness and communication by coordinating with the County to utilize reverse 911 system, social media, and the internet.	No	N/A	12 months	Town Board	\$5,000	Reduce risk to citizens through improved communication and early warning.	Local Department Budget	H	Communication
3	5.4	Flood	Drainage System Improvements: Inadequate drainage systems cause flooding, damages to roadways, and create hazardous driving conditions for motorists. This project protects the community and reduces risk of flooding.	Increase drainage capacity; add stormwater detention and/or retention basins as deemed necessary to reduce flood risk.	No	Further review required	Annually	Town Board	\$100,000 (annually)	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security



# ANNEX R: TOWN OF PHELPS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
4	4.3	Flood, Wildfire	Disclosure Notification: Due to high-risk areas within the Town, there is a need to inform potential buyers of at risk-properties. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Disclosure of natural hazard risks during real estate transaction	No	N/A	As needed	Town Board	Staff Time	Reduce risk of damages to new structures and infrastructure through building restrictions in high-risk areas.	Local Department Budget	M	Communication
5	3.1	Wildfire	Fire and HazMat Safety Awareness: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Local Fire Districts: Phelps, Clifton Springs, Oaks Corners	\$25,000 per Fire District	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time; FASNY	M	Communication
6	4.2	Wildfire, Fire, Water Supply Contamination	Bulk Water Station: The Town of Phelps utilizes 3 water sources for various water districts. We are implementing a continuous connection between all water sources to separate specific water sources in case of contamination of a single water source.	Assess and expand water districts throughout the Town of Phelps for better fire protection coverage and safer water for our residents and businesses.	No	Further Review Required	12-24 months	Town Board	\$500,000	Reduce risk and spread of fire and wildfires; Reduce risk of injury or damages.	USDA loans and low interest loans	H	Safety/Security, Food/Water/ Shelter

# ANNEX R: TOWN OF PHELPS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
7	2.3	Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Utility Standard: Currently there are no standards for utility line protection. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Proposed legislation for the implementation of utility standards.	No	Further review required	Annually	Town Board	Staff Time	Reduce risk of damage to infrastructure. Ensure continuity of critical services.	Private Developers	L	Communication
8	6.1	Drought, Extreme Heat, Flood, Wildfire	Landscape Ordinance: Currently there are no codes in place to recommend use of landscape native to area. This project will protect the community and reduce flooding.	Adopt a landscape ordinance (selection and planting guidelines).	No	Further review required	Annually	Town Board	Staff Time	Reduce impact on groundwater; Minimize impacts of expansive soils; Reduce rainfall runoff volume and risk of flooding; Reduce risk and spread of wildfire.	Private Developers	L	Communication
9	5.4	Flood	Drainage improvements for new development areas near flood zone according to the rules and regulations in the 2020 IEC Residential and Building Codes: Inadequate drainage systems cause flooding, damages to roadways, and create hazardous driving conditions for motorists. This project protects the community and reduces the risk of flooding.	Installation of drainage is done per project according to rules and regulations of all necessary departments involved (DEC, Code, Zoning, County, etc.).	No	Further review required	On-going	Town Board	Minor drainage improvements (e.g., minor regrading) - \$50,000+; More significant projects requiring land acquisition, permitting and large-scale earthwork - \$1,000,000+	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security, Communication

# ANNEX R: TOWN OF PHELPS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	2.3	Flood	Town Drainage Plan: Inadequate drainage systems cause flooding, damage to roadways, and create hazardous driving conditions for motorists. This project protects the community and reduces risk of flooding.	Drainage is to be considered and evaluated for every project, so flood risks related to 500yr flood events are considered for critical facilities. Drainage is evaluated in every project, involve all departments and agencies needed.	No	Further review required	On-going	Town Board	Staff Time	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget	M	Safety/Security, Communication
11	4.2	Wildfire, Fire	Expansion of water district and coverage and better bulk water station: Assessment of current water districts and capabilities.	To expand water districts throughout the Town of Phelps for better fire water for our residents. Keep expanding water districts and a bulk water station at the corners of State Route 14 and Cross Road	No	Further review required	On-going	Local Fire Departments: Phelps, Clifton Springs, Oaks Corners	Staff Time	Clean and safe water for the residents. Bulk water station benefits fire departments, residents with wells and nonresidents passing through with campers and water needs	Local Department Budget; FASNY	L	Safety/Security, Food/Water/ Security
12	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX R: TOWN OF PHELPS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
13	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
14	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX R: TOWN OF PHELPS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
15	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
16	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare bi-lingual tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX R: TOWN OF PHELPS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
17	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board, Ontario County Planning in partnership with Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
18	3.1	Infestation	Invasive Species and Infestation: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX R: TOWN OF PHELPS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
19	3.3	Drought, Flood, Landslide, Lightning, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
20	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc. Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
21	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication



# ANNEX R: TOWN OF PHELPS

TOWN OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
22	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
23	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
24	1.4	Flood	Feasibility Study at Wastewater Treatment Plant: Determine feasible alternatives to mitigate repetitive flood issues at plant. Implement cost effective alternative identified in study to ensure continuity of operations during 500yr flood events. This project helps ensure critical facilities continue to provide services during unforeseen events.	Town of Phelps will complete a feasibility study for the Sewage Treatment Plant to identify the current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the infrastructure to the 0.2% flood level.	Yes	Further review required	18 months	Town Board and Public Works	Cost to be determined based on feasibility study.	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce emergency response and improve egress, reduce loss of function.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security

# ANNEX R: TOWN OF PHELPS

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Phelps
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	X
Continuity of Operations	X
Drought Contingency Plan	
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	X
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	X
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	X
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX R: TOWN OF PHELPS

COMMUNITY CAPABILITY CHECKLIST	Town of Phelps
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	X
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX R: TOWN OF PHELPS

COMMUNITY CAPABILITY CHECKLIST	Town of Phelps
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	X
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	X
Personnel with Hazard Knowledge	X
Planners	
Public Information Official	X
Resource Development/ Grant Writer	





**ANNEX S**  
**VILLAGE OF PHELPS**

# ANNEX S: VILLAGE OF PHELPS

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- Note to the Reviewer ..... 2
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## ANNEX S: VILLAGE OF PHELPS

### JURISDICTION PROFILE

#### OVERVIEW

The Village of Phelps is in Ontario County, New York and has a population of just over 1,800. The village is near the center of the Town of Phelps and is north of Geneva. According to the United States Census Bureau, the village has a total area of 1.2 square miles, all land. The Village of Phelps is south of the New York State Thruway (Interstate 90). New York State Route 96 is an east-west highway passing through the village. Flint Creek flows through the village to Canandaigua Outlet. The Village of Phelps is in the Finger Lakes District and is north of Seneca Lake. Figure S-1 shows the general location of the Village of Phelps.

### VILLAGE OF PHELPS CONTACT INFORMATION

Name: Brian Hemminger

Title: Mayor

Phone: (585) 548-3861

Address: 8 Banta Street, Suite 150, Phelps, NY 14532

Email: [mayor@phelpsny.com](mailto:mayor@phelpsny.com)

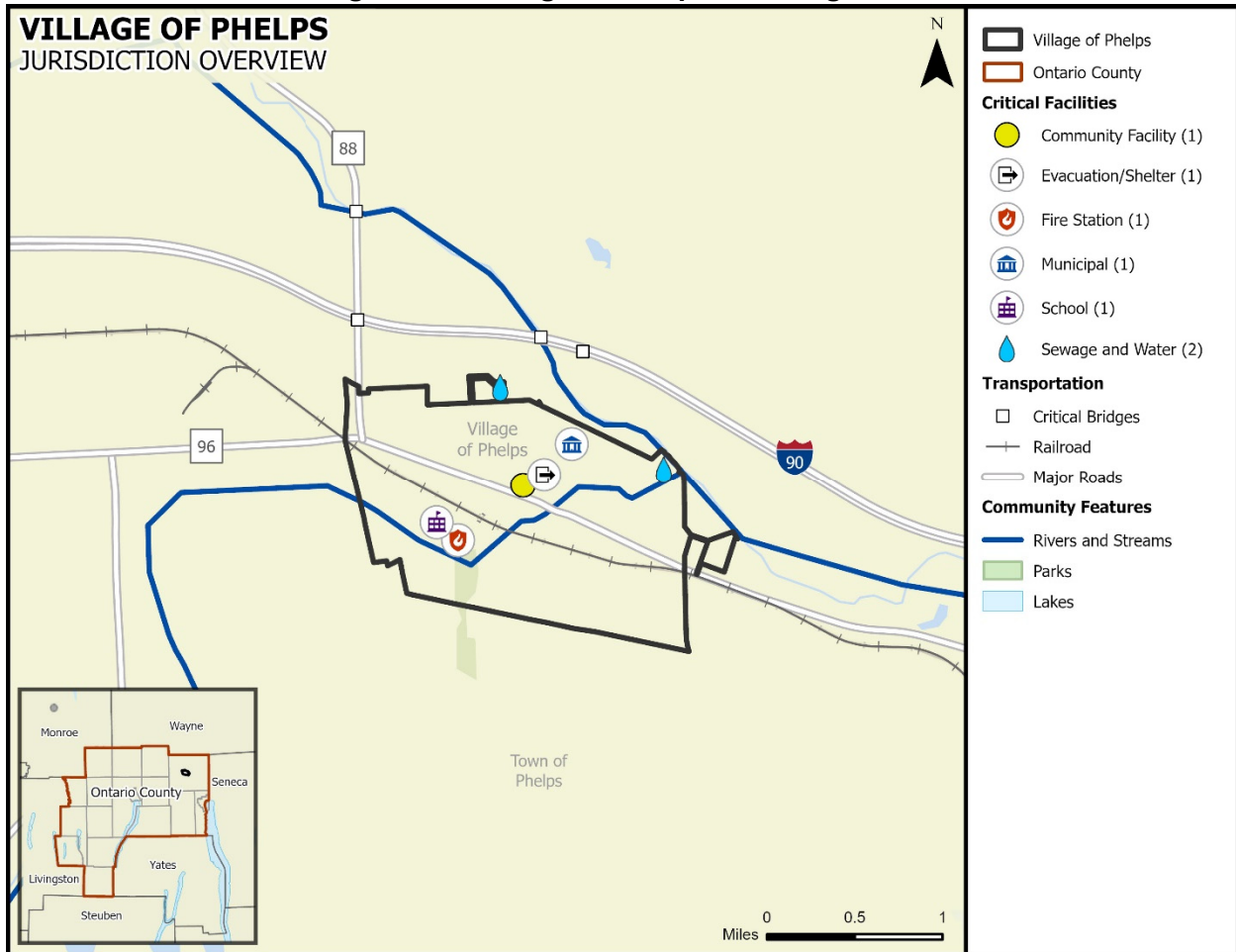
### NOTE TO THE REVIEWER

It is noted that the Village of Phelps and the Town of Phelps are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.



# ANNEX S: VILLAGE OF PHELPS

Figure S-1. Village of Phelps Planning Area<sup>1</sup>



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Village of Phelps has an official population of 1,851 residents, a 6.9 percent decrease since the 2010 census. Table S-1 summarizes select characteristics of vulnerable or sensitive populations in the Village of Phelps using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

## ANNEX S: VILLAGE OF PHELPS

**Table S-1. Population Distribution for the Village of Phelps**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Village of Phelps	1,989	2,081	4.62%	206	332	348

### POPULATION GROWTH

The official 2020 Village of Phelps population is 1,851. Overall, the Village of Phelps experienced a decrease in population between 1990 and 2020 of 6.4 percent, or a decrease by 127 residents. Between 2010 and 2020, the Village of Phelps experienced a population decline. Table S-2 provides historic change rates in the Village of Phelps.

**Table S-2. Population Growth for the Village of Phelps, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Village of Phelps	1,978	1,969	1,989	1,851	-127	-6.4%	-138	-6.9%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Village of Phelps might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table S-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

# ANNEX S: VILLAGE OF PHELPS

**Table S-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

## PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table S-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table S-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Village of Phelps	Mayor

## PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Village of Phelps’s website. A total of six surveys were completed for the Village of Phelps. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX S: VILLAGE OF PHELPS

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Village of Phelps's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX S: VILLAGE OF PHELPS

### HAZARD PROFILES

#### DAM FAILURE

The Village of Phelps is not profiling dam failure. The Village of Phelps does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX S: VILLAGE OF PHELPS

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Village of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Phelps can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Phelps, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Village of Phelps planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Village of Phelps:

**Table S-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

The population over 65 in the Village of Phelps is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 10 percent, or an estimated total of 538 potentially vulnerable residents in the Village of Phelps based on age. In addition, an estimated 17 percent of the Village of Phelps’ population live below the poverty level (Table S-6).

**Table S-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Phelps	332	206	348

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX S: VILLAGE OF PHELPS

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Village of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Phelps can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Phelps, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Phelps planning team members identified the following critical facilities (Table S-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Village of Phelps:

**Table S-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

The population over 65 in the Village of Phelps is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 10 percent, or an estimated total of 538 potentially vulnerable residents in the Village of Phelps based on age. In addition, an estimated 17 percent of the Village of Phelps’ population live below the poverty level (Table S-8).

**Table S-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Phelps	332	206	348

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.



## ANNEX S: VILLAGE OF PHELPS

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Village of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Phelps can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Phelps, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Phelps planning team members identified the following critical facilities (Table S-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Village of Phelps:

**Table S-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

The population over 65 in the Village of Phelps is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 10 percent, or an estimated total of 538 potentially vulnerable residents in the Village of Phelps based on age. In addition, an estimated 17 percent of the Village of Phelps’ population live below the poverty level (Table S-10).

**Table S-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Phelps	332	206	348

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

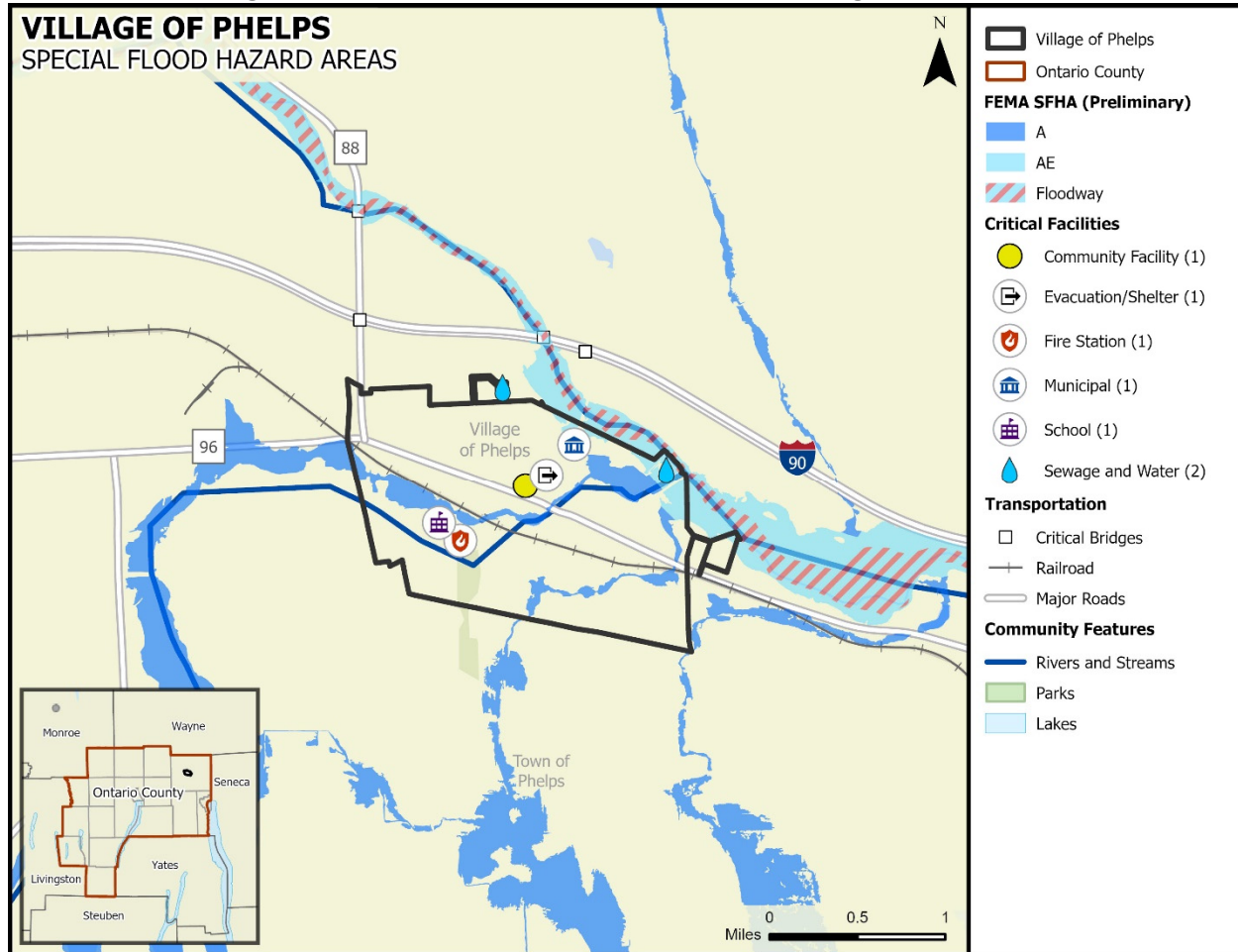
# ANNEX S: VILLAGE OF PHELPS

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Village of Phelps, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Village of Phelps, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure S-2.

Figure S-2. Estimated Flood Zones in the Village of Phelps<sup>8</sup>



### HISTORICAL OCCURRENCES

Table S-11 provides the historical occurrences of flood events for the Village of Phelps according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, three flood events were known to have impacted the Village of Phelps, based upon NCEI records. Flood events are

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX S: VILLAGE OF PHELPS

often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table S-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	8/3/2001	0	0	\$66,743	\$0
	5/29/2002	0	0	\$411,806	\$0
	10/26/2021	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$478,549</b>	<b>\$0</b>

Based on the list of historical flood events for the Village of Phelps, one of the reported events has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Phelps can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Phelps planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table S-12 includes the critical facilities in the Village of Phelps located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in Section 9.

**Table S-12. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Village of Phelps	Sewage Treatment Plant Structure	Utility	1%

Historic loss estimates due to flood events are presented in Table S-13 below.

**Table S-13. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Phelps	3	\$478,549	\$17,402

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 17 percent of the Village

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX S: VILLAGE OF PHELPS

of Phelps' population live below the poverty level (Table S-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table S-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Phelps	348

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table S-15 depicts the level of impact for the Village of Phelps.

**Table S-15 Village of Phelps Impact**

JURISDICTION	IMPACT	DESCRIPTION
Village of Phelps	Limited	It is anticipated that the Village could anticipate an impact of "limited" with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Village of Phelps currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Village of Phelps has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Village of Phelps as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Village of Phelps Zoning Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table S-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

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**Table S-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Village of Phelps	N/A	N/A	Good Standing	0

### *REPETITIVE LOSS*

The Village of Phelps currently has no repetitive loss or severe repetitive loss properties.

# ANNEX S: VILLAGE OF PHELPS

## HAIL

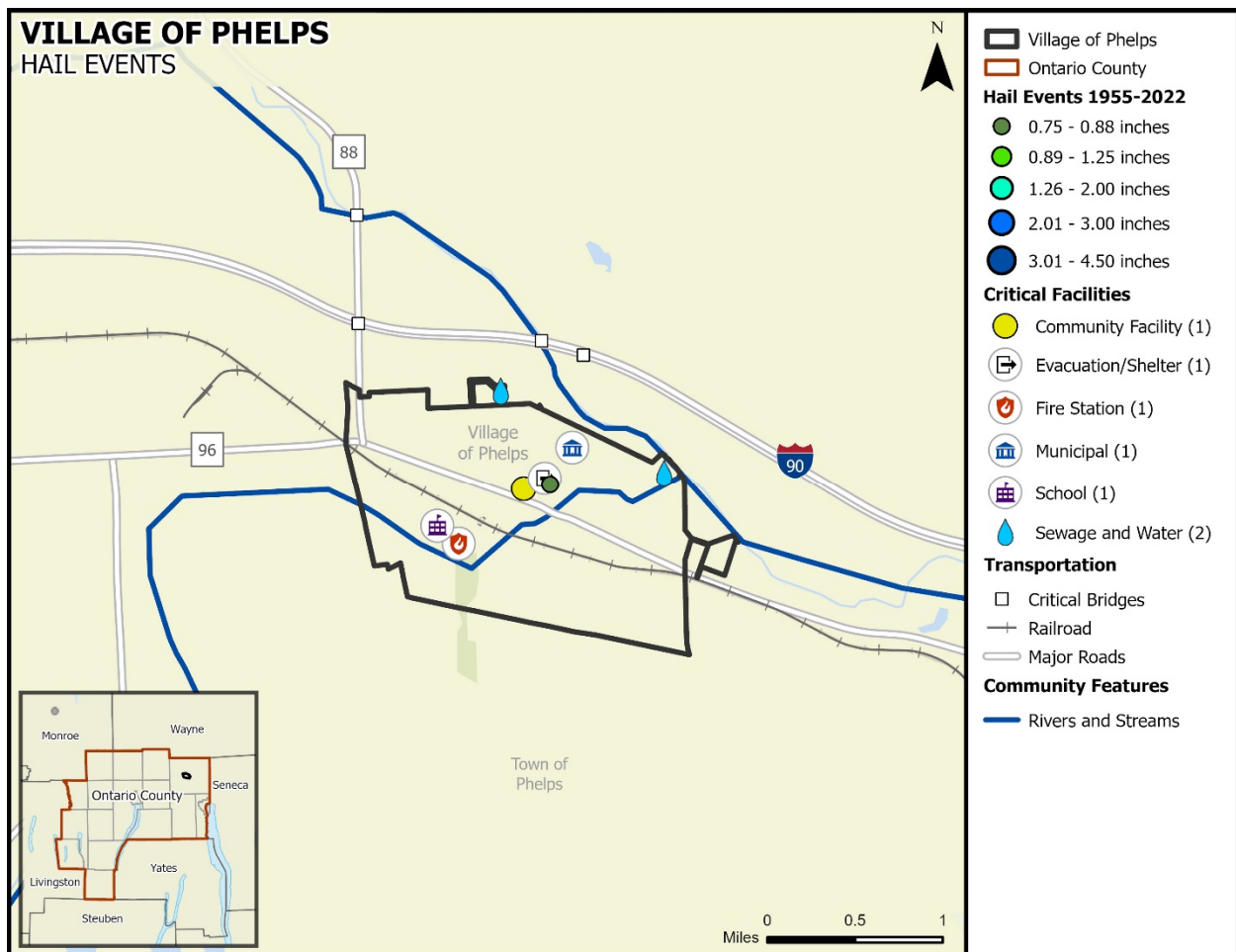
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure S-3 demonstrates that the Village of Phelps is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table S-17. A total of three reported historical hail events impacted the Village of Phelps between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Village of Phelps with latitude and longitude available were plotted (Figure S-3).

**Figure S-3. Historical Hail Events, 1956-2023<sup>11</sup>**



<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX S: VILLAGE OF PHELPS

**Table S-17. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	5/29/2012	0.88	0	0	\$0	\$0
	5/18/2017	1.25	0	0	\$0	\$0
	5/30/2017	1	0	0	\$0	\$0
<b>TOTALS</b>	-	<b>1.25 (Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>

Based on the list of historical hail events for the Village of Phelps, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Phelps can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table S-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, there are no manufactured homes located in the Village of Phelps (0 percent of total housing stock). In addition, 89 percent (approximately 830 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during hail events.

**Table S-19. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Phelps	830	0

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.



## ANNEX S: VILLAGE OF PHELPS

stay away from home, and to rebuild or repair their homes. An estimated 17 percent of the Village of Phelps' population live below the poverty level (Table S-20).

**Table S-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Phelps	348

Overall, the total loss estimate of property and crops in the Village of Phelps is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Village of Phelps can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table S-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Phelps	\$0	\$0

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## ICE STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Village of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Phelps can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Phelps, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Phelps planning team members identified the following critical facilities (Table S-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Village of Phelps:

**Table S-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

The population over 65 in the Village of Phelps is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 10 percent, or an estimated total of 538 potentially vulnerable residents in the Village of Phelps based on age. In addition, an estimated 17 percent of the Village of Phelps’ population live below the poverty level (Table S-23).

**Table S-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Phelps	332	206	348

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX S: VILLAGE OF PHELPS

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Village of Phelps is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Village of Phelps over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Village of Phelps.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX S: VILLAGE OF PHELPS

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There has been one recorded lightning event in the Village of Phelps from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

**Table S-24. Historical Lightning Events, 1996-2023<sup>13</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	7/4/2001	0	3	\$0	\$0
<b>TOTALS</b>		0	3	\$0	\$0

Based on the list of historical lightning events for the Village of Phelps, there have been no reported events since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Village of Phelps is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Village of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table S-25. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>13</sup> Historical events are reported from January 1996 through June 2023; values are in 2023 dollars.

## ANNEX S: VILLAGE OF PHELPS

stay away from home, and to rebuild or repair their homes. An estimated 17 percent of the Village of Phelps' population live below the poverty level (Table S-26).

**Table S-26. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Phelps	348

Historical losses and damages as a result of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the total loss estimate for the Village of Phelps (in 2023 dollars) is considered \$0 with an average annualized loss of \$0 (Table S-27).

**Table S-27. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Phelps	\$0	\$0

# ANNEX S: VILLAGE OF PHELPS

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Village of Phelps, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Phelps can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Phelps, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Phelps planning team members identified the following critical facilities (Table S-28) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Village of Phelps:

**Table S-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

The population over 65 in the Village of Phelps is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 10 percent, or an estimated total of 538 potentially vulnerable residents in the Village of Phelps based on age. In addition, an estimated 17 percent of the Village of Phelps’ population live below the poverty level (Table S-29).

**Table S-29. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Phelps	332	206	348

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX S: VILLAGE OF PHELPS

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Village of Phelps. Historical tornado events are often provided on a county-wide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Village of Phelps can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Village of Phelps is “Occasional”.

### VULNERABILITY AND IMPACT

The Village of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table S-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, there are no manufactured homes located in the Village of Phelps (0 percent of total housing stock). In addition, 89 percent (approximately 830 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

**Table S-31. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Phelps	830	0



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While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 17 percent of the Village of Phelps' population live below the poverty level (Table S-32).

**Table S-32. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Phelps	348

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate average annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Village of Phelps would be considered "Limited", with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table S-33. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Village of Phelps	\$0	\$0

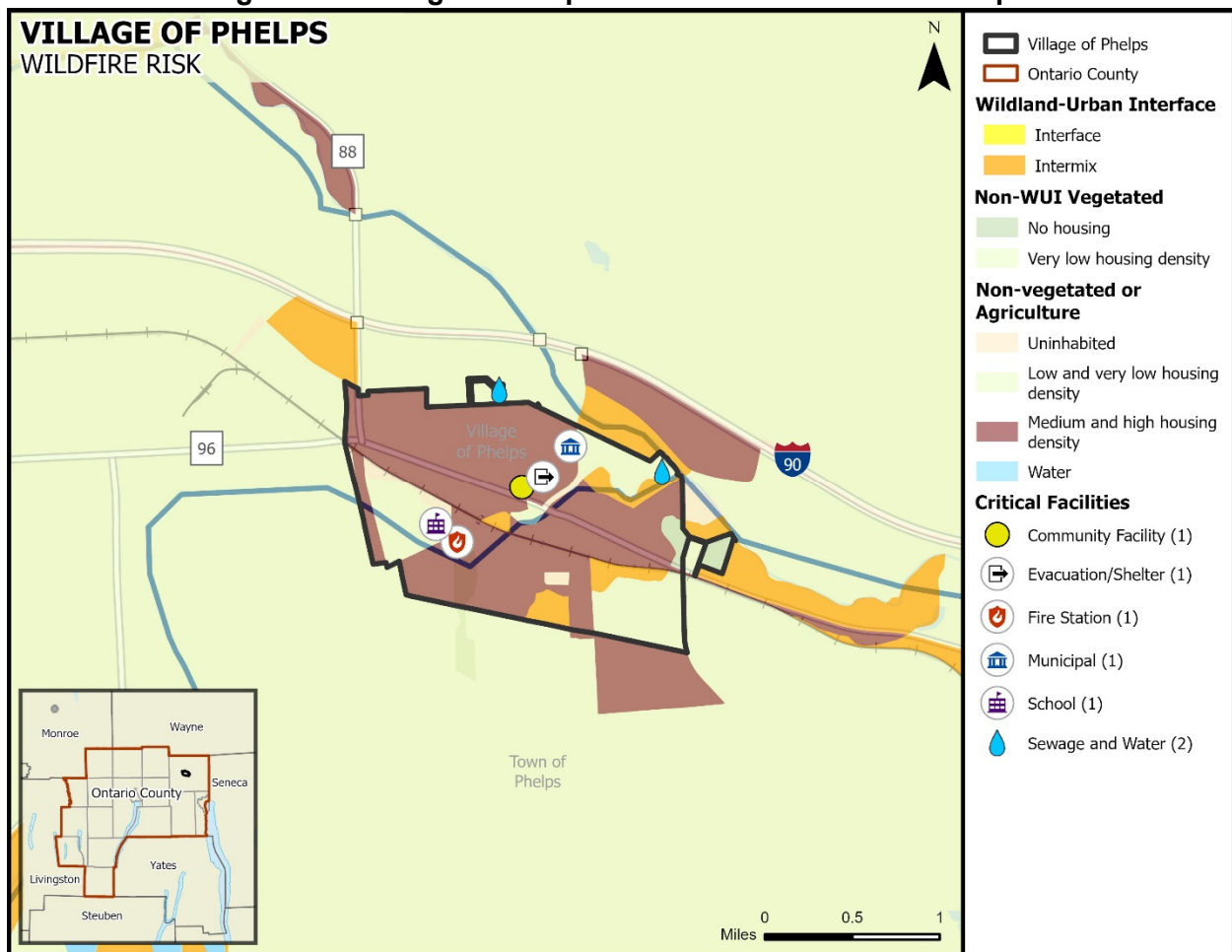
# ANNEX S: VILLAGE OF PHELPS

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure S-4). The Village of Phelps planning area is considered at low risk for wildfires with limited WUI areas.

Figure S-4. Village of Phelps Wildland Urban Interface Map<sup>14</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>14</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX S: VILLAGE OF PHELPS

of Forest Protection issues color coded danger alerts. The entire planning area, including the Village of Phelps, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

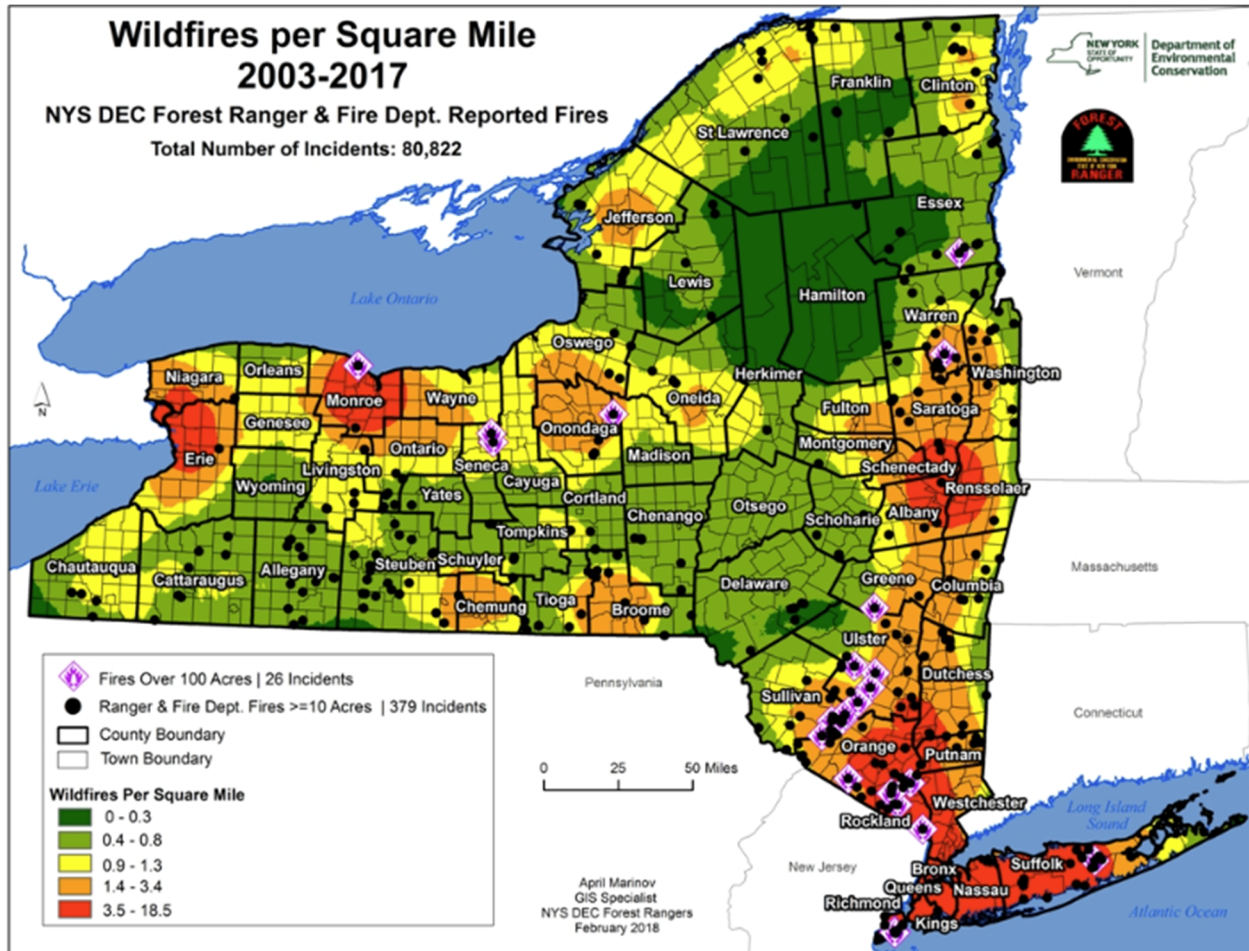
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure S-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Village of Phelps planning area can anticipate limited future wildfire events, burning less than 10 acres.

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Figure S-5. Wildfires per Square Mile, 2003-2017



### HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

### VULNERABILITY AND IMPACT

The Village of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.

ANNEX S: VILLAGE OF PHELPS

**Table S-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

For the Village of Phelps, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX S: VILLAGE OF PHELPS

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, 26 wind events are known to have occurred in the Village of Phelps. Table S-35 presents information on known historical events impacting the Village of Phelps.

**Table S-35. Historical Wind Events, 1968-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Phelps	7/26/1994	Unknown	0	0	\$9,979	\$0
	7/6/1995	Unknown	0	0	\$38,842	\$0
	6/30/1998	Unknown	0	0	\$18,170	\$0
	11/6/2005	50	0	0	\$22,483	\$0
	6/21/2007	50	0	0	\$17,058	\$0
	1/9/2008	50	0	0	\$11,225	\$0
	4/26/2008	50	0	0	\$13,787	\$0
	7/21/2008	50	0	0	\$20,197	\$0
	7/26/2009	51	0	0	\$24,755	\$0
	8/16/2010	50	0	0	\$13,566	\$0
	5/29/2011	51	0	0	\$10,486	\$0
	5/29/2012	50	0	0	\$12,887	\$12,887
	5/13/2014	50	0	0	\$12,449	\$0
	6/24/2014	50	0	0	\$18,639	\$0
	6/24/2014	60	2	0	\$43,492	\$0
	6/10/2015	52	0	0	\$31,027	\$0
	6/23/2015	50	0	0	\$12,411	\$0
	8/13/2016	50	0	0	\$12,297	\$0
	8/13/2016	50	0	0	\$12,297	\$0
	10/15/2017	50	0	0	\$18,011	\$0
	8/8/2019	50	0	0	\$577	\$0
	8/18/2019	50	0	0	\$2,309	\$0

<sup>15</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX S: VILLAGE OF PHELPS

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
	7/29/2020	51	0	0	\$2,286	\$0
	7/20/2021	51	0	0	\$542	\$0
	8/29/2022	51	0	0	\$2,188	\$0
	9/22/2022	51	0	0	\$2,188	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>2</b>	<b>0</b>	<b>\$384,148</b>	<b>\$12,887</b>

Based on the list of historical wind events for the Village of Phelps, six of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Phelps can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Phelps planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table S-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Phelps	2 Community Facilities, 1 Evacuation Shelter, 1 Fire Station, 1 Municipal Building, 1 School, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, there are no manufactured homes located in the Village of Phelps (0 percent of total housing stock). In addition, 89 percent (approximately 830 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during wind events.

**Table S-37. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Phelps	830	0

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 17 percent of the Village of Phelps’ population live below the poverty level (Table S-38).



## ANNEX S: VILLAGE OF PHELPS

**Table S-38. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Phelps	348

Impact of wind events experienced in the Village of Phelps would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. However, with two fatalities, the impact is considered “major” with multiple injuries possible depending on the severity of the event. Over the 67.5-year reporting period there has been a total of \$397,035 damages (in 2023 dollars) in the Village of Phelps due to wind events. The estimated average annual loss from a wind event is \$5,882.

**Table S-39. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town and Village of Phelps	\$397,035	\$5,882

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX S: VILLAGE OF PHELPS

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>VP-1:</b>	
<b>Name of Jurisdiction:</b>	Village of Phelps
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Shelter needs generator – Phelps Community Center; building is Village property.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	While generators are already installed at DPW shop and Fire Department; these facilities were deemed not applicable for a shelter due to quantity of use during an emergency situation.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	VP-1: PCC Generator
<b>Action or Project Description:</b>	Install a generator at the Phelps Community Center in order to use the facility as an emergency shelter when needed.
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	Currently obtaining “load studies” in order to accurately size a generator for the facility; until this is completed, we are unable to accurately estimate the cost. Due to the location, size, and accessibility of the building the benefits to the community are immeasurable.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Department of Public Works
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2015-2016 Budget Year
<b>Potential Fund Sources:</b>	This expense has been figured into the current year’s budget and will be funded by the Public Works Equipment Fund Reserve.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	As DPW schedule permits.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Completed.

# ANNEX S: VILLAGE OF PHELPS

## NEW MITIGATION ACTIONS

VILLAGE OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	5.4	Flood	Debris Maintenance Program: Extreme rainfall events result in high stormwater flow rates, which result in the destabilization of stream channels (including streambanks), that causes erosion and deposition within these streams, as well as stream migration. The erosion of streambanks and migration of stream channels can jeopardize adjacent buildings, bridges, culverts, roadways, utilities, and other infrastructure. This project protects the community and reduces risk of flooding.	Continue to assess and implement maintenance as needed for clearing debris from bridges, drains, and culverts.	Yes	Further review required	Annually	Village Board	Staff Time	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget, Staff time	M	Safety/Security
2	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX S: VILLAGE OF PHELPS

VILLAGE OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snowstorms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
4	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX S: VILLAGE OF PHELPS

VILLAGE OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
5	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
6	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX S: VILLAGE OF PHELPS

VILLAGE OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
7	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Village Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
8	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Village Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX S: VILLAGE OF PHELPS

VILLAGE OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
9	3.3	Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Village Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
10	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Village Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
11	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Village Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication



# ANNEX S: VILLAGE OF PHELPS

VILLAGE OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Village Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
13	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination have been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Village Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	4.1	Flood	Flood Zone Outreach Program: Recent developments have occurred near flood zones and some future development is anticipated near or within flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Once new FEMA maps are available, create a flood zone brochure for homeowners within flood zones to ensure they are in proper regulations.	No	N/A	12 months	Village Planning Department	Staff Time	Reduces risk of flood damages to high-risk structures and prevent future losses in high-risk flood hazard areas; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget, Staff time	M	Communication
15	1.4	Flood	Feasibility Study at Wastewater Treatment Plant: Determine feasible alternatives	Village of Phelps will complete a feasibility study for the Sewage	Yes	Further review required	18 months	Village Board and Public Works	Cost to be determined based on	Reduce flood risk; reduce damages and risk of injuries or	Local Department Budget;	H	Safety/Security

# ANNEX S: VILLAGE OF PHELPS

VILLAGE OF PHELPS PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			to mitigate repetitive flood issues at plant. Implement effective alternative identified in study to ensure continuity of operations during 500yr flood events. This project helps ensure critical facilities continue to provide services during unforeseen events.	Treatment Plant to identify the current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the infrastructure to the 0.2% flood level.					feasibility study.	fatalities; reduce emergency response and improve egress, reduce loss of function.	HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds		

# ANNEX S: VILLAGE OF PHELPS

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Village of Phelps
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX S: VILLAGE OF PHELPS

COMMUNITY CAPABILITY CHECKLIST	Village of Phelps
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	
Site Plan Review Requirements	X
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX S: VILLAGE OF PHELPS

COMMUNITY CAPABILITY CHECKLIST	Village of Phelps
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	



# ANNEX T TOWN OF RICHMOND



# ANNEX T: TOWN OF RICHMOND

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# ANNEX T: TOWN OF RICHMOND

## JURISDICTION PROFILE

### OVERVIEW

The Town of Richmond is located in Ontario County, New York, with a population of 3,380. The Town of Richmond is on the western border of the county, south of Rochester. The town line is the border of Livingston County. According to the United States Census Bureau, the town has a total area of 44.3 square miles, of which 42.4 square miles is land and 1.9 square miles, or 4.3%, is water. Honeoye Lake is primarily located in the town limits and Honeoye Creek is an outlet to the lake that flows northward through the town. Figure T-1 shows the general location of the Town of Richmond.

## TOWN OF RICHMOND CONTACT INFORMATION

Name: Daryl Marshall

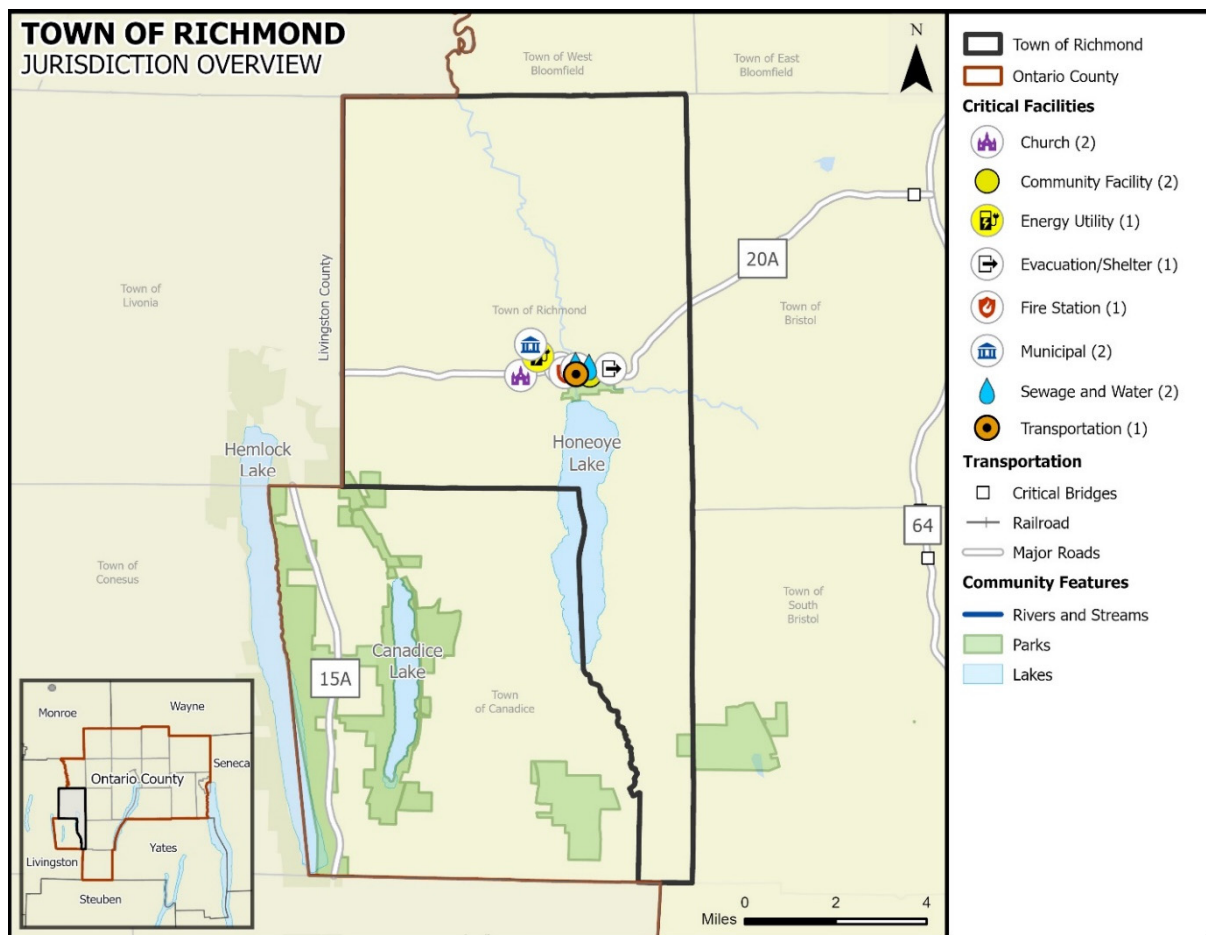
Title: Town Supervisor

Phone: (585) 229-5757

Address: 8690 Main Street, P.O. Box 145,  
Honeoye, NY 14471

Email: [supervisor@townofrichmond.org](mailto:supervisor@townofrichmond.org)

Figure T-1. Town of Richmond Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

# ANNEX T: TOWN OF RICHMOND

## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Richmond has an official population of 3,360 residents, a slight decrease since the 2010 census. Table T-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Richmond using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table T-1. Population Distribution for the Town of Richmond**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Richmond	3,361	3,370	0.27%	52	925	64

## POPULATION GROWTH

The official 2020 Town of Richmond population is 3,360. Overall, the Town of Richmond experienced an increase in population between 1990 and 2020 of 4 percent, or an increase by 130 residents. Between 2010 and 2020, the Town of Richmond experienced a population decline. Table T-2 provides historic change rates in the Town of Richmond.

**Table T-2. Population Growth for the Town of Richmond, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Richmond	3,230	3,452	3,361	3,360	130	4.0%	-1	0.0%

## FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Richmond might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX T: TOWN OF RICHMOND

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table T-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

**Table T-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table T-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table T-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Richmond	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Richmond’s website. A total of four surveys were completed for the Town of Richmond.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX T: TOWN OF RICHMOND

Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Richmond's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX T: TOWN OF RICHMOND

### HAZARD PROFILES

#### DAM FAILURE

The Town of Richmond is not profiling dam failure. The Town of Richmond does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

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## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Richmond, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Richmond can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Richmond, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Richmond planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Town of Richmond:

**Table T-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

The population over 65 in the Town of Richmond is estimated at 27 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 977 potentially vulnerable residents in the Town of Richmond based on age. In addition, an estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-6).

**Table T-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Richmond	925	52	64

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However,

## ANNEX T: TOWN OF RICHMOND

drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.



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## EXTREME COLD

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Richmond, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Town of Richmond can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Town of Richmond, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Richmond planning team members identified the following critical facilities (Table T-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Town of Richmond:

**Table T-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

The population over 65 in the Town of Richmond is estimated at 27 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 977 potentially vulnerable residents in the Town of Richmond based on age. In addition, an estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-8).

**Table T-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Richmond	925	52	64

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX T: TOWN OF RICHMOND

## EXTREME HEAT

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Richmond, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Town of Richmond can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Town of Richmond, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Richmond planning team members identified the following critical facilities (Table T-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Town of Richmond:

**Table T-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

The population over 65 in the Town of Richmond is estimated at 27 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 977 potentially vulnerable residents in the Town of Richmond based on age. In addition, an estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-10).

**Table T-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Richmond	925	52	64

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

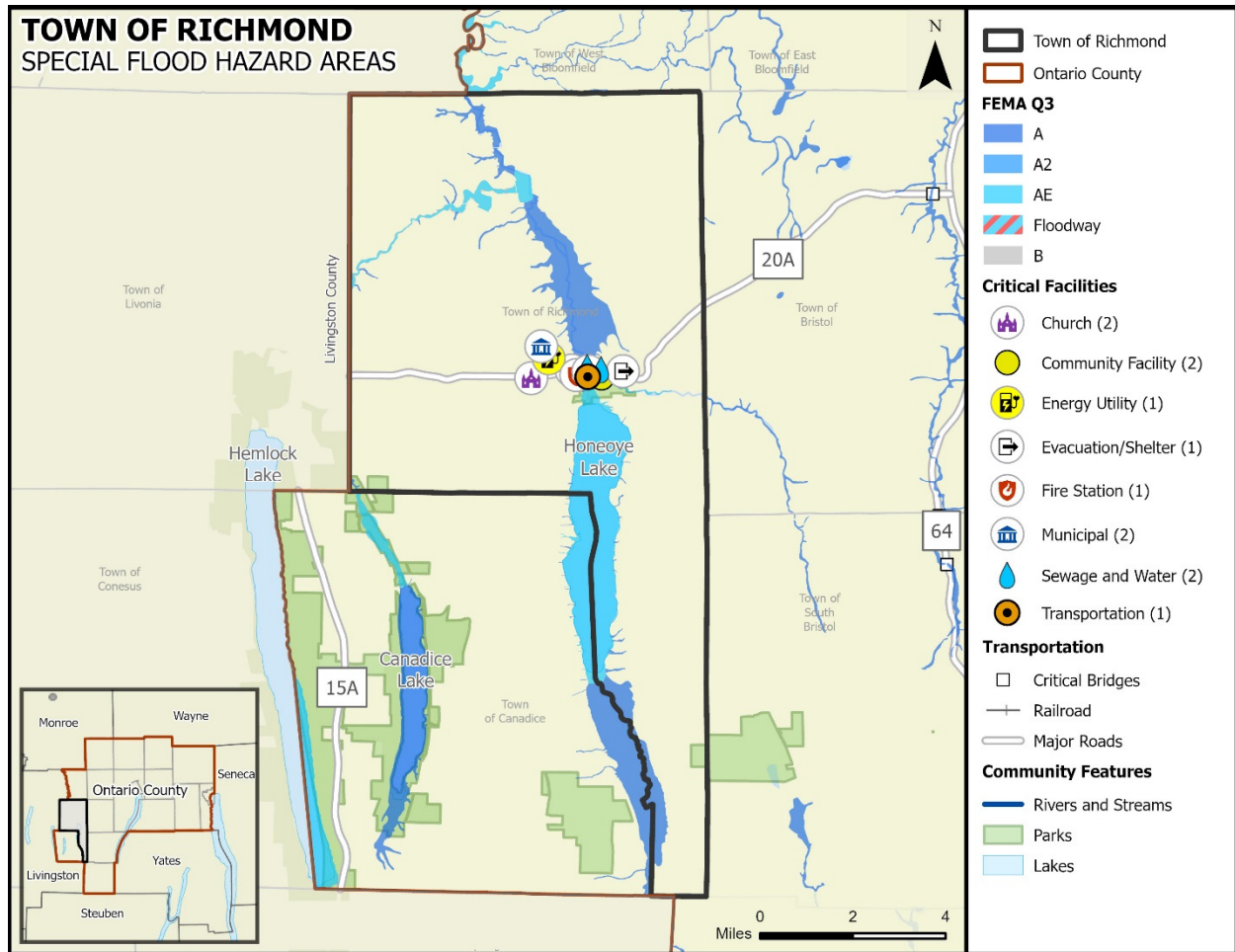
# ANNEX T: TOWN OF RICHMOND

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Richmond, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Richmond, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure T-2.

**Figure T-2. Estimated Flood Zones in the Town of Richmond<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table T-11 provides the historical occurrences of flood events for the Town of Richmond according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, six flood events were known to have impacted the Town of Richmond, based upon NCEI records. Flood events

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Q3 Flood Data (2023)

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are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table T-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Richmond	8/5/2003	0	0	\$3,208,787	\$0
	6/3/2007	0	0	\$21,322	\$0
	7/13/2010	0	0	\$13,585	\$0
	7/28/2014	0	0	\$186,467	\$0
	6/14/2015	0	0	\$31,027	\$0
	6/20/2019	0	0	\$1,156	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$3,462,344</b>	<b>\$0</b>

Based on the list of historical flood events for the Town of Richmond, one of the reported events has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Richmond can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Richmond planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table T-12 includes the critical facilities in the Town of Richmond located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in Section 9.

**Table T-12. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Town of Richmond	Town Hall <sup>10</sup>	Municipal Building	X
	Honeoye Public Library	Municipal Building	1%
	Kwik Fill Gas Station	Community Resource - Gas	1%
	Honeoye Lake Sewer District	County Government Utility	1%
	Sandy Bottom Park and Nature Trail	Natural Resource - DEC Wetlands	1%

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Town Hall is located in close proximity to SFHA. Action has been included to determine if mitigation is needed for critical government facility.

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Historic loss estimates due to flood are presented in Table T-13 below.

**Table T-13. Potential Annualized Losses, 1996-2023<sup>11</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Richmond	6	\$3,462,344	\$125,903

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table T-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Richmond	64

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table T-15 depicts the level of impact for the Town of Richmond.

**Table T-15. Town of Richmond Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Richmond	Limited	It is anticipated that the Town could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Richmond currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Richmond has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Richmond as a high-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Richmond Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

<sup>11</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

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- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table T-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table T-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Richmond	N/A	7/26/2016	Good Standing	31

### *REPETITIVE LOSS*

Table T-17 shows repetitive loss and severe repetitive loss properties for the Town of Richmond.

**Table T-17. Repetitive Loss and Severe Repetitive Loss Properties**

JURISDICTION	BUILDING TYPE	NUMBER OF LOSSES
Town of Richmond	Single Family	2
	Business	4
	Single Family	4
	2-4 Family Building	4
	Single Family	2

# ANNEX T: TOWN OF RICHMOND

## HAIL

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence across the planning area demonstrates that the Town of Richmond is vulnerable to hail events overall. However, no reported historical hail events have impacted the Town of Richmond between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years.

### PROBABILITY OF FUTURE EVENTS

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Richmond can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

The Town of Richmond planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table T-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

According to the American Community Survey (ACS) five-year estimates for 2021, there are no manufactured homes located in the Town of Richmond. In addition, 63 percent (approximately 1,223 structures) of the housing structures in the Town of Richmond were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table T-19. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Richmond	1,223	0

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term



## ANNEX T: TOWN OF RICHMOND

stay away from home, and to rebuild or repair their homes. An estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-20).

**Table T-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Richmond	64

Overall, the total loss estimate of property and crops in the Town of Richmond is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Town of Richmond can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table T-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Richmond	\$0	\$0

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### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Richmond, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Richmond can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Richmond, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Richmond planning team members identified the following critical facilities (Table T-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Town of Richmond:

**Table T-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

The population over 65 in the Town of Richmond is estimated at 27 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 977 potentially vulnerable residents in the Town of Richmond based on age. In addition, an estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-23).

**Table T-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Richmond	925	52	64

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

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### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake in the Town of Richmond are at a slightly greater risk for landslides. This is the only known area in the Town of Richmond slightly susceptible or prone to landslide.

According to the New York State Hazard Mitigation Plan, the entire population in the Town of Richmond is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents, including one in the Town of Richmond, and no known damages due to landslides.

**Table T-24. Historical Landslide Events, 1996-2023<sup>12</sup>**

JURISDICTION	DATE	INJURIES	FATALITIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Richmond	7/13/2010	0	0	\$0	\$0
<b>TOTAL LOSSES</b>		<b>0</b>	<b>0</b>	<b>\$0</b>	

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there is one known historic event of landslide in the Town of Richmond over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Richmond.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the Town of Richmond is the area along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

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<sup>12</sup> Damages are reported from January 1996 through June 2023.

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## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Town of Richmond from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Richmond is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of Richmond planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table T-25. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-26).

**Table T-26. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Richmond	64

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for

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24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Richmond due to lightning are considered negligible.

**Table T-27. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Richmond	\$0	\$0

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### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Richmond, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Richmond can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Richmond, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Richmond planning team members identified the following critical facilities (Table T-28) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Town of Richmond:

**Table T-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

The population over 65 in the Town of Richmond is estimated at 27 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 977 potentially vulnerable residents in the Town of Richmond based on age. In addition, an estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-29).

**Table T-29. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Richmond	925	52	64

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX T: TOWN OF RICHMOND

### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Town of Richmond. Historical tornado events are often provided on a countywide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

#### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Richmond can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Town of Richmond is “Occasional”.

#### *VULNERABILITY AND IMPACT*

The Town of Richmond planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table T-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

According to the American Community Survey (ACS) five-year estimates for 2021 there are no manufactured homes located in the Town of Richmond. In addition, 63 percent (approximately 1,223 structures) of the housing structures in the Town of Richmond were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant tornado events.

**Table T-31. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Richmond	1,223	0



## ANNEX T: TOWN OF RICHMOND

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-32).

**Table T-32. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Richmond	64

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate average annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Town of Richmond would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table T-33. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Richmond	\$0	\$0

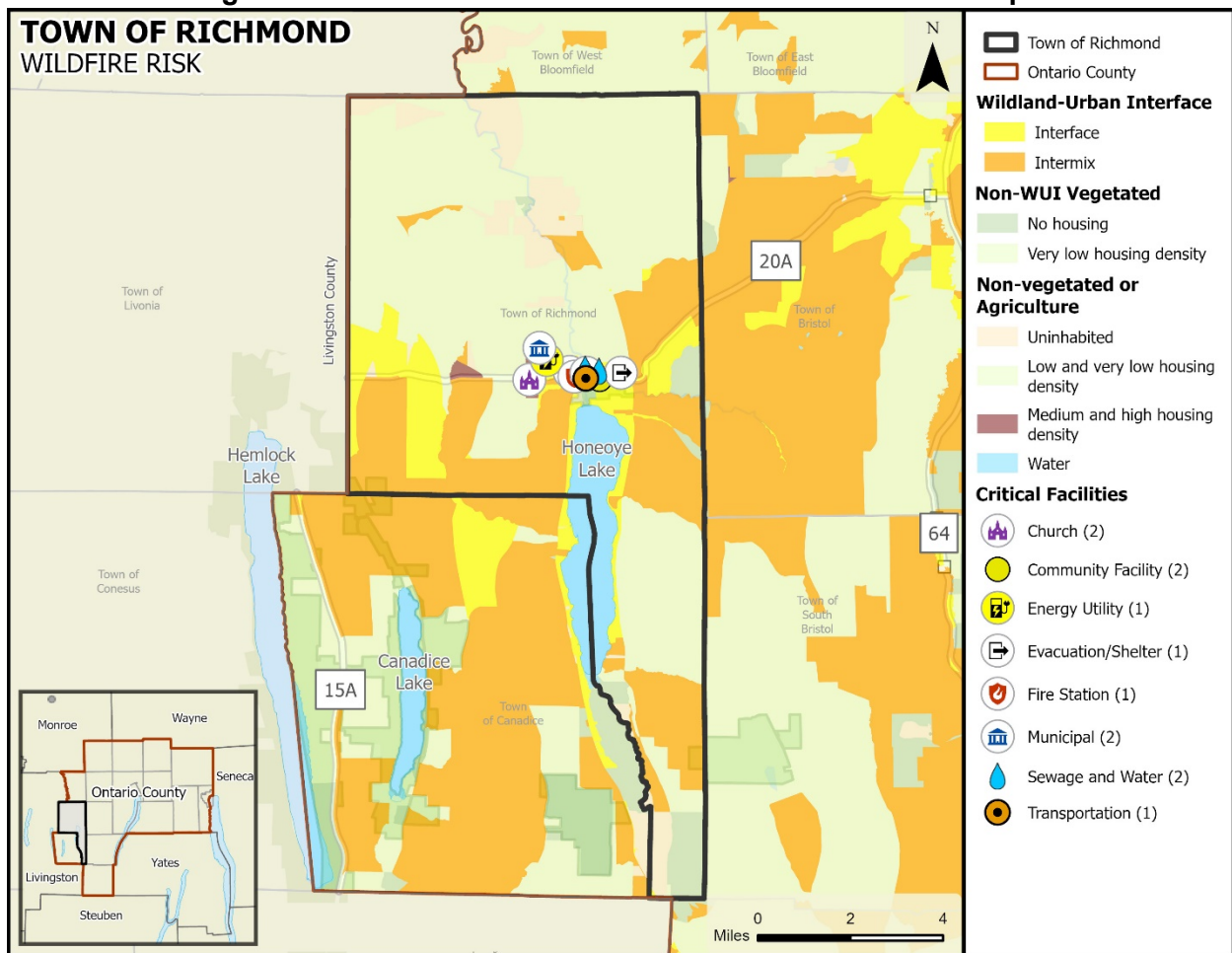
# ANNEX T: TOWN OF RICHMOND

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure T-3). The Town of Richmond planning area is considered at low risk for wildfires with limited WUI areas.

**Figure T-3. Town of Richmond Wildland Urban Interface Map<sup>13</sup>**



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>13</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX T: TOWN OF RICHMOND

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Richmond, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

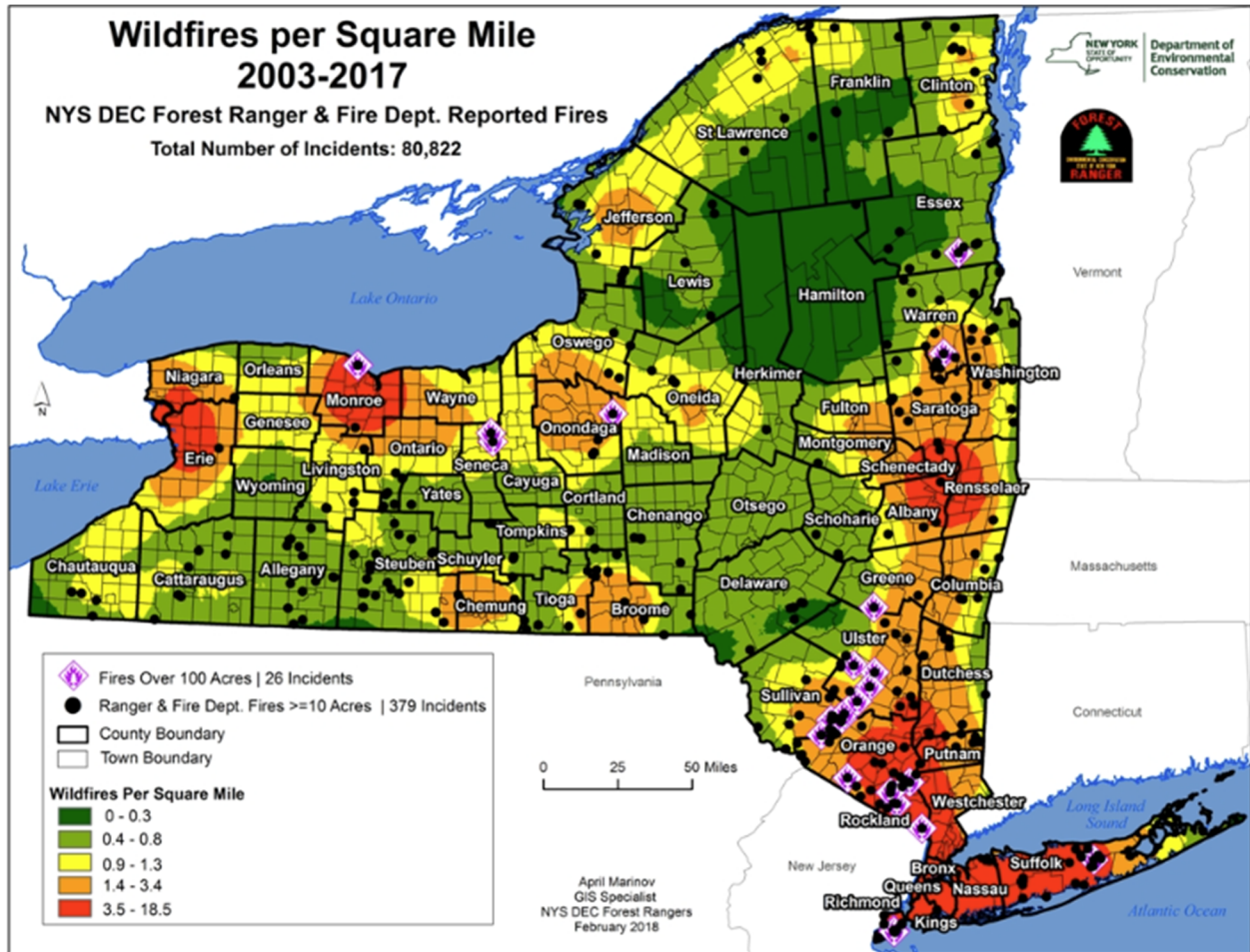
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure T-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Town of Richmond planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX T: TOWN OF RICHMOND

Figure T-4. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Richmond planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.

# ANNEX T: TOWN OF RICHMOND

**Table T-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

For the Town of Richmond, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX T: TOWN OF RICHMOND

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, six wind events are known to have occurred in the Town of Richmond. Table T-35 presents information on known historical events impacting the Town of Richmond.

**Table T-35. Historical Wind Events, 1968-2023<sup>14</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Richmond	6/29/2008	50	0	0	\$20,303	\$0
	7/8/2014	55	0	0	\$12,431	\$0
	5/25/2019	50	0	0	\$1,157	\$0
	8/8/2019	50	0	0	\$1,154	\$0
	8/27/2020	51	0	0	\$570	\$0
	4/1/2023	51	0	0	\$514	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$36,129</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of Richmond, four of the reported events have occurred since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Richmond can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Town of Richmond planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

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<sup>14</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.



## ANNEX T: TOWN OF RICHMOND

**Table T-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Richmond	2 Churches, 3 Commercial Buildings, 1 Community Facility, 1 Federal Community Facility, 1 Recreation Facility/Park, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Fire Station, 3 Municipal Buildings, 4 Sewage and Water Facilities, 1 Fuel Station

According to the American Community Survey (ACS) five-year estimates for 2021, there are no manufactured homes located in the Town of Richmond. In addition, 63 percent (approximately 1,223 structures) of the housing structures in the Town of Richmond were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant wind events.

**Table T-37. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Richmond	1,223	0

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 2 percent of the Town of Richmond’s population live below the poverty level (Table T-38).

**Table T-38. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Richmond	64

Impact of wind events experienced in the Town of Richmond would be considered “Limited”, with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$36,129 damages (in 2023 dollars) in the Town of Richmond due to wind events. The estimated average annual loss from a wind event is \$535.

**Table T-39. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Richmond	\$36,129	\$535

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.



## ANNEX T: TOWN OF RICHMOND

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX T: TOWN OF RICHMOND

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TR-1: Drainage improvements and flood damage repair and prevention</b>	
<b>Name of Jurisdiction:</b>	Town of Richmond
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Vulnerable to flooding and heavy rain, significant flooding in the past. Serious erosion problems have occurred on East Lake Road and Wesley Road originating from rain events that occurred in 2011. Some recent developments have occurred near flood zones and future development is anticipated near or within flood zones, (regulation/enforcement are important). Extensive flooding and damage in 2014. Did not meet FEMA threshold for reimbursement on damages. Experienced similar flood events in June 2015.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	TR-1: Drainage improvements and flood damage repair and prevention – road, ditch and culvert repair and upgrades, stream channel improvement and stream bank stabilization. Provide protection for critical facilities from 500yr flood events.
<b>Action or Project Description:</b>	Roads ditches and culverts need repair or replacement. Over 3000 feet of ditches need repair. Wesley Rd needs repairs, 22 Roads in 52 areas sustained recent flood damage worst being Allens Hill, Canadice Lake Rd, East Lake Rd, Bell Rd (had one lane washed out).
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Wesley Rd repairs estimated at \$250k. In 2014 over 100k damage to 22 Roads in 52 areas sustained damage worst being Allens Hill, Canadice Lake Rd, East Lake Rd, Bell Rd (had one lane washed out). Did not meet FEMA threshold for reimbursement on damages.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Highway Superintendent
<b>Action/Project Priority:</b>	HIGH Priority
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	USACE, Fish and Wildlife, Subject Matter Expertise from SWCD*
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Road repairs being made as Town Budget and resources allow.
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Completed. However, the Town continues to experience sediment accumulation and erosion on roads and ditches due to high rain events. Past improvements and upsizing of culverts has help to reduce the impacts from these heavy rains.

## ANNEX T: TOWN OF RICHMOND

<b>Previous Action Worksheet</b>	
<b>TR-2: Flood insurance study and map updates</b>	
<b>Name of Jurisdiction:</b>	Town of Richmond
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Flood risk to some critical facilities - Richmond Fire Department (Honeoye) - In Flood Zone; Sewage Treatment Plant Structure - In Flood Zone; Heavy rain has affected the water system in the past (4/2011). Water flowed out of the top of well number two for three straight days from the hydraulic pressure due to saturated ground. Experienced similar problems during the flood events of May and July 2015.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TR-2: Flood insurance study and map updates
<b>Name of Action or Project:</b>	TR-2: Flood insurance study and map updates
<b>Action or Project Description:</b>	Seek funding to update the community's flood insurance study and mapping and develop a strategy to protect critical facilities from ongoing flood risk
<b>Summary of Evaluation Benefits (losses avoided):</b>	Be able to accurately communicate flood risk, protection of critical facilities from 500yr flood events.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
	\$50,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	HIGH Priority
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	FEMA
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Seek funding opportunities to update the community's flood insurance study and mapping.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. FEMA is currently in the process of a FIRM update. The Town of Richmond is challenging the new maps based on inaccurate data. The flooding that our community faces periodically is due to the inability to maintain stream bed flows, due to NYSDEC regulations.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX T: TOWN OF RICHMOND

<b>Previous Action Worksheet</b>	
<b>TR-3: Continue and expand aquatic invasive species programs</b>	
<b>Name of Jurisdiction:</b>	Town of Richmond
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Aquatic invasive species problem on Honeoye Lakes.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TR-3: Continue and expand aquatic invasive species programs
<b>Name of Action or Project:</b>	TR-3: Continue and expand aquatic invasive species programs
<b>Action or Project Description:</b>	Programs could include information/education programs; watercraft stewards/inspection and organism removal; boat washing station
<b>Summary of Evaluation Benefits (losses avoided):</b>	Public health concerns. Minimize potential damage to resources on which the recreation and tourism industry depend.
<b>Estimated Cost:</b>	\$10,000 education materials;
<b>Other Factors Considered:</b>	\$50,000 – hire boat inspectors (if need be) \$40,000 – set up boat washing stations (if need be)
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board,
<b>Action/Project Priority:</b>	HIGH Priority
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Communities bordering Honeoye Lake
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Honeoye Lake Watershed Task Force, Honeoye Valley Association with support from Finger Lakes (Partnership for Regional Invasive Species Management (PRISM)).
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed and Defer to Plan Update. On-going. Programs
<b>Report of Progress:</b>	have been implemented to help control invasive species from entering the Lake. This is an ongoing effort requiring
<b>Evaluation of Effectiveness:</b>	constant lake monitoring and educating the public.

## ANNEX T: TOWN OF RICHMOND

<b>Previous Action Worksheet</b>	
<b>TR-4: Local law enforcement and maintenance – stormwater management, soil erosion, steep slopes and timber harvesting laws</b>	
<b>Name of Jurisdiction:</b>	Town of Richmond
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Landslide Hazard - erosion and sediment control is a concern - erosion related to Honeoye Lake is a concern; mudslide occurred due to heavy rain and flooding.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	TR-4: Local law enforcement and maintenance – storm water management, soil erosion, steep slopes, and timber harvesting laws
<b>Action or Project Description:</b>	Enforce Storm Water Management, Soil Erosion, Steep Slopes, and Timber Harvesting Laws and review/update periodically
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	Maintain natural and recreational resources. Staff time and resources
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board,
<b>Action/Project Priority:</b>	HIGH Priority
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Communities bordering the lake
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Periodic review and update as necessary. Revise as appropriate to reflect community development changes and visions for future development. (HIGH Priority)
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Completed and Defer to Plan Update. Steeps slopes regulations have been implemented by the Town. This erosion concern continues to be monitored and corrective bank stabilization projects are continually being worked on.

## ANNEX T: TOWN OF RICHMOND

<b>Previous Action Worksheet</b>	
<b>TR-5: Honeoye Lake water quality protection</b>	
<b>Name of Jurisdiction:</b>	Town of Richmond
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Honeoye lake water quality needs to be protected - sediment, nitrogen/phosphorus.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TR-5: Honeoye Lake water quality protection
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Support the development of programs planned for the protection of Honeoye Lake.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Major one-year storm events are responsible for up to 70% of the sediment and nutrient loading.
<b>Estimated Cost:</b>	Focus on programs that will be the most effective and cost beneficial.
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	HIGH Priority
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	NYS DEC
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Periodic review and update as necessary. Revise as appropriate to reflect community development changes and visions for future development. (HIGH Priority)
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed. The Town has enacted legislation to protect the lake quality. The Town also works closely with community groups, continuing to monitor lake quality and recommending programs to improve the quality of our lake.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX T: TOWN OF RICHMOND

<b>Previous Action Worksheet</b>	
<b>TR-6: Back-up generators for municipal facilities</b>	
<b>Name of Jurisdiction:</b>	Town of Richmond
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan - 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Need expanded utility backup during hazard events
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	TR-6: Back-up generators for municipal facilities at the Town Hall (8690 Main St, Honeoye) and Highway Garage (8935 Dugan Dr, Honeoye)
<b>Action or Project Description:</b>	Provide back-up generators for municipal facilities and operations, and for supporting community needs during a 500yr floods and other hazard events.
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	Maintain continuity of operations \$100,000 to purchase and hardwire two generators
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	HIGH Priority
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	FEMA HMGP
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Determine the need for back-up generators for municipal facilities and operations, and for supporting community needs during a hazard event.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Defer to Plan Update. Backup systems have not been installed yet, but the Town is currently pursuing a backup generator for the Town Hall at this time.



# ANNEX T: TOWN OF RICHMOND

## NEW MITIGATION ACTIONS

TOWN OF RICHMOND PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Flood	Feasibility Study for Richmond Town Hall (Honeoye), 8690 Main St., Honeoye: There is potential flood risk as location is near (or within) flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Town of Richmond will complete a feasibility study for the Richmond Town Hall (Honeoye) to identify the current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the structure to the 0.2% flood level.		Further review required	24 months	Town Board and Public Works	Cost determined based on feasibility study	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function and continuity of operations and critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Communication
2	4.2	Flood	Feasibility Study for Honeoye Lake Sewer District facilities and sewer treatment plant, 8632 Main St., Honeoye: There is potential flood risk as location is near (or within) flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Ontario County in coordination with the Town of Richmond will complete a feasibility study for the Honeoye Lake Sewer District facilities and treatment plant to identify the current flood risk, determine if mitigation is needed, assess alternatives, and implement feasible alternative for flood reduction, protecting the infrastructure to the 0.2% flood level.		Further review required	24 months	Ontario County, Town Board and Public Works	Cost determined based on feasibility study	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function and continuity of operations and critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Communication

# ANNEX T: TOWN OF RICHMOND

TOWN OF RICHMOND PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Generator at Town Hall (8690 Main St, Honeoye) and Highway Garage (8935 Dugan Dr, Honeoye): During power outages, the critical facilities would be without lights, communications, and maintenance equipment/machinery. The operations are basically brought to a halt. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Assess the need for generators at critical facilities within Town. Acquire and install a permanent generator for facilities based on a priority level.	Yes	Further review required	24 months	Town Board and Public Works	\$1,000,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Fuel)
4	1.1	Flood, Hail, Snow Storm, Tornado, Wind	StormReady Program: Better enhance community's preparedness for natural weather events. This project protects the community and promotes public safety.	Obtain certification in the National Weather Service StormReady Program which is a community preparedness program that encourages government entities to prepare for severe storms. The program issues recognition to communities and sites across the country that demonstrate severe weather readiness.	No	N/A	48-60 months	Town Board	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget	L	Communication, Safety/Security

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5	5.4	Drought, Flood, Hail, Ice Storm, Lighting, Snow Storm, Tornado, Wildfire, Wind	Harden Critical Facilities: Assessment of current facilities and whether they need upgrades as some facilities within Town may need necessary updates due to date of structure. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Harden/retrofit critical facilities to hazard-resistant levels. Based on assessment will make upgrades on a priority level.	Yes	Further review required	24 months	Town Board and Public Works	\$1,000,000	Reduce damages at critical facilities; Ensure continuity of critical services during and after event; Reduce risk of injury to emergency and critical personnel.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
6	4.1	Flood	Relocation of at-risk facilities: There is a known flood risk within the area. Assessment of those properties that are at risk and determine if relocation is a cost-effective option. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Relocate critical facilities out of high hazard areas	Yes	Further review required	24-60 months	Town Board	Cost to be determined based of proposed site locations	Reduce risk of damages to structures; Ensure continuity of critical services; Reduce risk of injuries to critical service employees.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
7	4.3	Flood	Development restrictions: There is known flood and high-risk within the area. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Require new public buildings to be sited on low-risk parcels and/or restrict future development in high-risk areas. In addition, look to acquire and preserve open spaces adjacent to floodplain areas.	Yes	Further review required	12 months	Town Board	Staff Time  Cost determined based on acquiring land as needed	Reduce flood risk to structures and infrastructure in and near the floodplain; Reduce downstream impacts associated with development in the floodplain; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Communication, Safety/Security

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8	2.3	Flood, Wildfire	On-site retention basin program: Extreme rainfall events result in high stormwater flow rates, which can result in damage to downstream infrastructure and also result in the destabilization of stream channels (including streambanks), that causes erosion and deposition within these streams, as well as stream migration. The erosion of streambanks and migration of stream channels can jeopardize existing infrastructure, including roads, bridges, and buildings. This project protects the community and reduces flooding.	Adopt on-site retention basin program in conjunction with development to address excessive stormwater / firefighting water source.	No	Further review required	24-36 months	Town Board and Public Works	Staff Time	Requiring developers to implement on-site retention basin for new developments will prevent downstream impacts, reduce impacts to floodplain and provide additional potential water sources for firefighting uses.	Local Department Budget	M	Safety/Security
9	2.3	Flood, Wildfire	Alternative Evacuation Routes: Limited evacuation routes for residents during extreme hazard events. This project promotes public safety.	Develop alternative evacuation routes/plans and designate emergency thoroughfares, particularly in areas with limited capacity. Educate citizens on evacuation routes and procedures	No	Further review required	36-60 months	Town Board	Staff Time	Reduce risk residents through improved evacuation alternatives and awareness efforts.	Local Department Budget	L	Safety/Security, Communication
10	5.4	Flood, Wildfire	Enhance road conditions: Excessive rain can cause ditches to overflow and compromise roadways. Assessment and recommended road improvements are needed. This project protects	Evaluate access and road conditions for response vehicles. Develop and implement options to improve access and/or add redundant access routes in high-risk areas.	No	Further review required	36-60 months	Town Board	\$500,000	Reduce risk and spread of wildfires through maintained and redundant access routes in high-risk areas; Improve response time for emergency services;	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	L	Safety/Security, Transportation

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			infrastructure, reduces cost of reparation, and prevents injury to residents.							Reduce risk of injury or damages; Provide additional ingress/egress routes through high-risk areas to prevent loss of life and avoid rescue efforts.			
11	6.1	Drought, Extreme Heat, Flood, Wildfire	Smart Growth Initiatives: Consider in an effort to make the Town more resilient. This project protects the community and reduces risk of flooding.	Adopt smart growth initiatives. Incorporate a formal hazard mitigation plan in long-term community development planning activities.	No	N/A	36-60 months	Town Board	Staff Time	Reduce risk in high hazard areas by promoting and incentivizing development in low-risk areas; Build resiliency within the community; Reduce risk of damages through improved planning and construction practices.	Local Department Budget, Staff time	L	Safety/Security
12	2.3	Flood	Debris Clearing Program: Extreme rainfall and snowmelt events result in high stormwater flow rates, which can result in significant amounts of debris (including sediment, rubble, and woody debris) being mobilized and directed to downstream portions of drainage courses. The build-up of debris can compromise the performance of bridges and culverts, jeopardizing these installations (as well as the associated roadways). This project protects the community and reduces risk of flooding.	Adopt and implement a program for clearing debris from bridges, drains and culverts.	No	Further review required	24 months	Town Board and Public Works	\$50,000 (annually)	Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security

# ANNEX T: TOWN OF RICHMOND

## TOWN OF RICHMOND PROPOSED PROJECTS

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13	4.2	Flood	Flood Risk Study: Evaluation of high-risk areas within Town to identify flood mitigation needs to reduce risk. Floodwaters can cause debris to back up at the bridge, exacerbating flooding, damaging the bridge, and causing scour and erosion to embankments at the bridge site. This project protects the community and reduces risk of flooding.	Undertake a comprehensive study of flood risk and reduction alternatives. Implement feasible alternatives for flood reduction. Study can also include identification of flood prone and repetitive loss properties.	No	Further review required	24 - 36 months	Town Board	\$500,000	Improve risk assessment; Reduce risk of damages or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Communication, Safety/Security
14	3.2	Flood	Flood Education Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Implement a flood awareness program that can include providing FEMA/NFIP materials to mortgage lenders, real estate agents and insurance agents, and public venues, installation of warning signs and promotion of "Turn Around, Don't Drown", how-to-information for installation of backflow valves, etc.	No	N/A	12 months	Town Board	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
15	5.4	Flood	Drainage System Improvements: Inadequate drainage systems cause flooding, damage to roadways, and create hazardous driving conditions for motorists. This project protects the community and reduces risk of flooding.	Increase drainage capacity by implementing a program for clearing debris from bridges, culverts, and drains, upgrading undersized stormwater drains/culverts, add stormwater detention and/or retention basins, etc., as deemed necessary to reduce flood risk.	No	Further review required	24 – 48 months	Town Board	\$1,000,000	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security

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16	4.2	Flood	Implement stream restoration/channelization program: Loose vegetation mix with drainage water and cause damming and plugged culverts. When this occurs, flood water escapes the existing drainage network, causing significant damage to public and private property. Recovery efforts are time consuming and labor intensive. This project protects the community and reduces risk of flooding.	Reduce effects of erosion and sedimentation by requiring erosion/sedimentation controls for new construction; Include on-site sediment retention as a development requirement, adding thick vegetation to public lands along riverbanks, retain/maintain natural vegetation in stormwater channels	No	Further review required	24 – 48 months	Town Board	\$3,000,000	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
17	3.3	Wildfire	Hillside Development Restriction: There is known high- risk within the area.	Restrict hillside development in wildfire areas; Implement density and setback requirements for structures located in wildfire hazard areas.	No	N/A	36-60 months	Town Board	Staff Time	Reduce risk of wildfires and the spread of wildfire through improved development practices and building requirements/restrictions.	Local Department Budget, Staff time	L	Communication, Safety/Security
18	1.3	Wildfire	Implement a Fuel Reduction Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	24-36 months	Town Board, in conjunction with state and local agencies	Staff Time \$500,000	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters. Reduce risk of wildfires and the spread of wildfire through targeted fuels reduction programs.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security



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19	2.3	Flood	Flood Insurance Study and Maps: Heavy rain has affected the water system in the past. Water flowed out of the top of well number two for three straight days from the hydraulic pressure due to saturated ground. This project protects the community and reduces risk of flooding.	Seek funding to update the community's flood insurance study and mapping and develop a strategy to protect critical facilities from ongoing flood risk.	No	N/A	24-36 months	Town Board	Determined based on updated maps	Improve risk assessment; Reduce risk of damages or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget, Staff time	H	Communication
20	2.1	Infestation	Expand aquatic invasive species programs: Aquatic invasive species problem on Honeoye Lakes.	Continue to implement programs to help control invasive species from entering the Lake and continued to be an ongoing effort requiring constant lake monitoring and educating the public.	No	Further Review Required	24-36 months	Town Board, Honeoye Lake Watershed Task Force, Honeoye Valley Association with support from Finger Lakes (Partnership for Regional Invasive Species Management (PRISM))	\$10,000 education materials; \$50,000 – hire boat inspectors (if need be) \$40,000 – set up boat washing stations (if need be)	Promote hazard awareness. Reduces the risk of continued infestation of non-native species.	Local Department Budget, Staff time	H	Communication, Safety/Security
21	3.3	Landslide, Flood	Enforcement of stormwater management, soil erosion, steep slopes and timber harvesting laws: Landslides continue to be a growing concern for the area. Erosion and sediment control related to Honeoye Lake is a concern as mudslide occurred due to heavy rain and flooding. This project protects community and reduces risk of flooding.	Enforce Storm Water Management, Soil Erosion, Steep Slopes, and Timber Harvesting Laws and review/update periodically	No	Further Review Required	On-going	Town Board, Local Law Enforcement	Staff Time	Reduce risk to structures and infrastructure; Reduce risk of injuries to citizens; Reduce burden on emergency services.	Local Department Budget, Staff time	H	Communication, Safety/Security

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22	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
23	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

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24	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
25	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

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26	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
27	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

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28	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
29	3.3	Drought, Flood, Hail, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
30	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

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31	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
32	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
33	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
34	4.2	Flood	Feasibility Study for Honeoye Public Library: There is potential flood risk as location is within flood zones. This project protects community asset, reduces cost of repairs, and prevents injury to residents.	Town of Richmond will complete a feasibility study for the Honeoye Public Library to identify the current flood risk, determine if mitigation is needed, assess alternatives, and	Yes	Further review required	24 months	Town Board and Public Works	Cost determined based on feasibility study	Reduce flood risk; reduce damages and risk of injuries or fatalities; reduce loss of function and continuity of operations and critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable)	H	Safety/Security, Communication

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				implement feasible alternative for flood reduction, protecting the structure to the 0.2% flood level.							local bonds		



# ANNEX T: TOWN OF RICHMOND

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Richmond
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	X
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	X
Transportation Plan	X
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	
Fire Codes	X

## ANNEX T: TOWN OF RICHMOND

COMMUNITY CAPABILITY CHECKLIST	Town of Richmond
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X
National Flood Insurance Program Participant	X

## ANNEX T: TOWN OF RICHMOND

COMMUNITY CAPABILITY CHECKLIST	Town of Richmond
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	X
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	X
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	X
Planners	
Public Information Official	X
Resource Development/ Grant Writer	X



**ANNEX U**  
**VILLAGE OF**  
**RUSHVILLE**

# ANNEX U: VILLAGE OF RUSHVILLE

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# ANNEX U: VILLAGE OF RUSHVILLE

## JURISDICTION PROFILE

### OVERVIEW

The Village of Rushville is in Ontario and Yates Counties, New York. It has a population of 650. Most of the Village is within the Town of Potter in Yates County and a small part is in the Town of Gorham in Ontario County. It is the only village in Ontario split between two counties. According to the U.S. Census Bureau, the village has a total area of 0.6 square miles, all land. Rushville is in the Finger Lakes District of New York and the West River flows southwest through the village. New York State Route 245 and New York State Route 247, pass, partly conjoined, through the Village of Rushville. Figure U-1 shows the general location of the Village of Rushville.

## VILLAGE OF RUSHVILLE CONTACT INFORMATION

Name: David R. LeClair

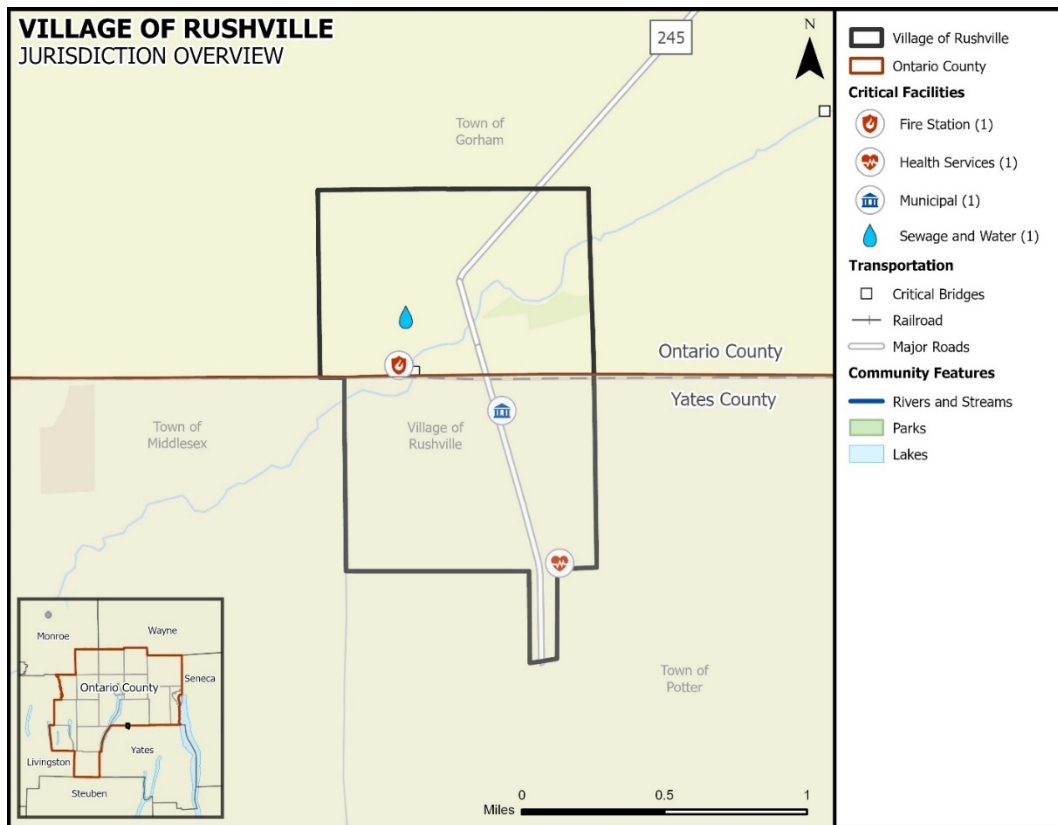
Title: Mayor

Phone: (585) 554-3415

Address: 1 South Main Street, Rushville, NY 14544

Email: [mayor@villageofrushville.com](mailto:mayor@villageofrushville.com)

Figure U-1. Village of Rushville Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

## ANNEX U: VILLAGE OF RUSHVILLE

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Village of Rushville has an official population of 651 residents, a 3.8 percent decrease since the 2010 census. Table U-1 summarizes select characteristics of vulnerable or sensitive populations in the Village of Rushville using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table U-1. Population Distribution for the Village of Rushville**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Village of Rushville	677	581	-14.16%	17	111	30

### POPULATION GROWTH

The official 2020 Village of Rushville population is 651. Overall, the Village of Rushville experienced an increase in population between 1990 and 2020 of 6.9 percent, or an increase by 42 residents. Between 2010 and 2020, the Village of Rushville experienced a population decline. Table U-2 provides historic change rates in the Village of Rushville.

**Table U-2. Population Growth for the Village of Rushville, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Village of Rushville	609	621	677	651	42	6.9%	-26	-3.8%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Village of Rushville might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>



## ANNEX U: VILLAGE OF RUSHVILLE

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table U-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

**Table U-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table U-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table U-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Village of Rushville	Mayor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Village of Rushville’s website. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX U: VILLAGE OF RUSHVILLE

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Village of Rushville's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX U: VILLAGE OF RUSHVILLE

### HAZARD PROFILES

#### DAM FAILURE

The Village of Rushville is not profiling dam failure. The Village of Rushville does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX U: VILLAGE OF RUSHVILLE

## DROUGHT

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Village of Rushville, are provided on a County-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Village of Rushville can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Village of Rushville, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Village of Rushville planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Village of Rushville:

**Table U-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Rushville is estimated at 19 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 118 potentially vulnerable residents in the Village of Rushville based on age. In addition, an estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-6).

**Table U-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Rushville	111	17	30

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX U: VILLAGE OF RUSHVILLE

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Village of Rushville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Rushville can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Rushville, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Rushville planning team members identified the following critical facilities (Table U-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Village of Rushville:

**Table U-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Rushville is estimated at 19 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 118 potentially vulnerable residents in the Village of Rushville based on age. In addition, an estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-8).

**Table U-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Rushville	111	17	30

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX U: VILLAGE OF RUSHVILLE

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Village of Rushville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Rushville can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Rushville, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Rushville planning team members identified the following critical facilities (Table U-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Village of Rushville:

**Table U-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Rushville is estimated at 19 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 118 potentially vulnerable residents in the Village of Rushville based on age. In addition, an estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-10).

**Table U-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Rushville	111	17	30

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

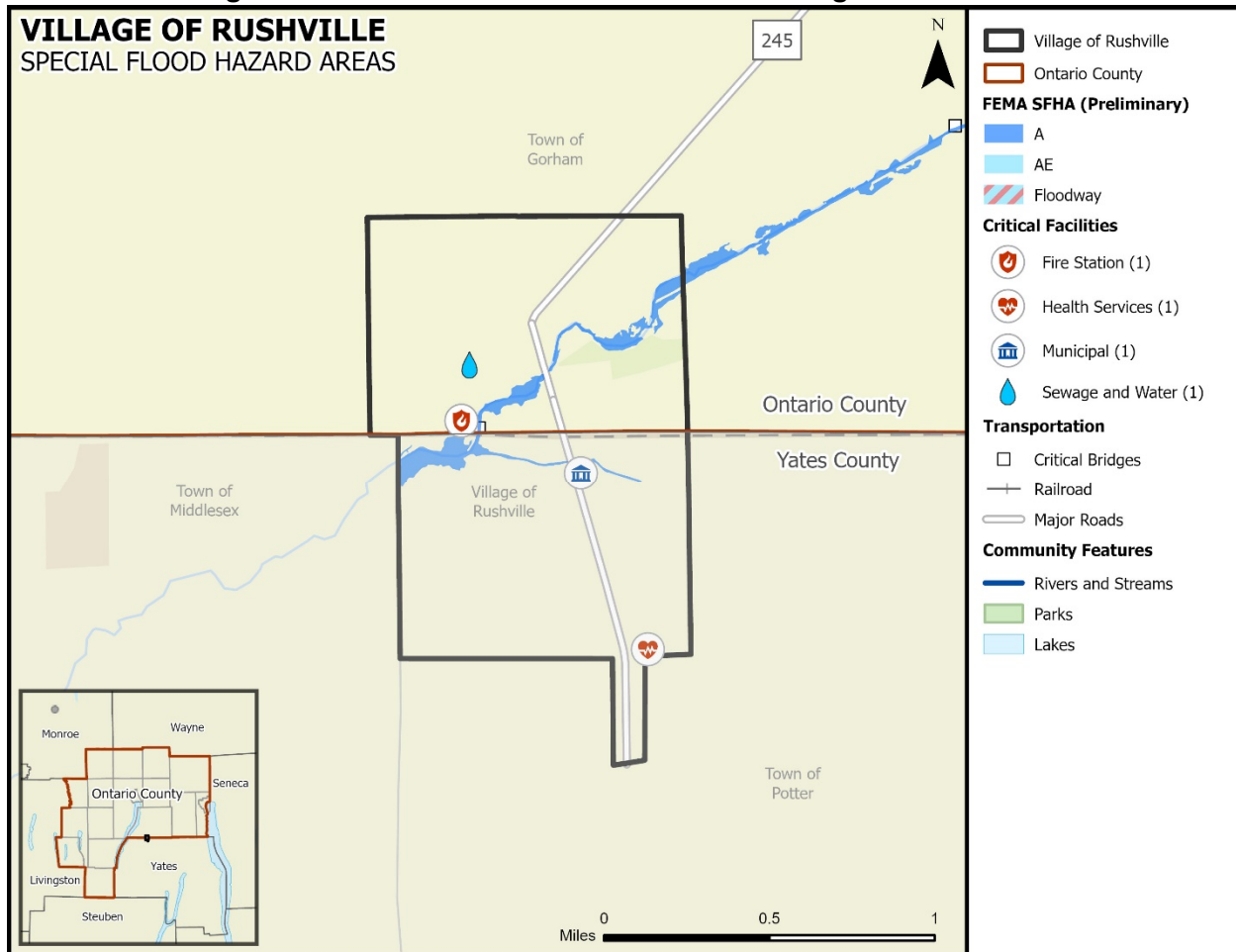
# ANNEX U: VILLAGE OF RUSHVILLE

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard boundary maps with no established base flood elevations are available in the Village of Rushville. The location of estimated flood zones for the Village of Rushville, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure U-2.

Figure U-2. Estimated Flood Zones in the Village of Rushville<sup>8</sup>



### HISTORICAL OCCURRENCES

According to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County, no flood events were known to have impacted the Village of Rushville from January 1996 through to August 2023. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)



## ANNEX U: VILLAGE OF RUSHVILLE

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Rushville can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Rushville planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. No critical facilities in the Village of Rushville are located in the floodplain.

Historic loss estimates due to flood events are presented in Table U-11 below.

**Table U-11. Potential Annualized Losses, 1996-2023<sup>9</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Rushville	0	\$0	\$0

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-12). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table U-12. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Rushville	30

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table U-13 depicts the level of impact for the Village of Rushville.

**Table U-13 Village of Rushville Impact**

JURISDICTION	IMPACT	DESCRIPTION
Village of Rushville	Limited	It is anticipated that the Village could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

---

<sup>9</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX U: VILLAGE OF RUSHVILLE

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Village of Rushville currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Village of Rushville has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Village of Rushville as a low risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Village of Rushville Zoning Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table U-14 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table U-14. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Village of Rushville	1/29/2007	N/A	Good Standing	21

### *REPETITIVE LOSS*

The Village of Rushville currently has no repetitive loss or severe repetitive loss properties.

# ANNEX U: VILLAGE OF RUSHVILLE

## HAIL

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence across the planning area demonstrates that the Village of Rushville is vulnerable to hail events overall. However, no reported historical hail events have impacted the Village of Rushville between January 1956 through August 2023. Events reported to NCEI and NOAA databases may not represent all hail events to have occurred during the past 67.5 years.

### PROBABILITY OF FUTURE EVENTS

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Rushville can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

The Village of Rushville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table U-15. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 32 (12 percent of total housing stock) manufactured homes located in the Village of Rushville. In addition, 74 percent (approximately 193 structures) of the housing structures in the Village of Rushville were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table U-16. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Rushville	193	32

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

## ANNEX U: VILLAGE OF RUSHVILLE

stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-17).

**Table U-17. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Rushville	30

Overall, the total loss estimate of property and crops in the Village of Rushville is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Village of Rushville can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table U-18. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Rushville	\$0	\$0

# ANNEX U: VILLAGE OF RUSHVILLE

## ICE STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Village of Rushville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Rushville can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Rushville, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Rushville planning team members identified the following critical facilities (Table U-19) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Village of Rushville:

**Table U-19. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Rushville is estimated at 19 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 118 potentially vulnerable residents in the Village of Rushville based on age. In addition, an estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-20).

**Table U-20. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Rushville	111	17	30

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX U: VILLAGE OF RUSHVILLE

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Village of Rushville is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Village of Rushville over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Village of Rushville.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslides and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX U: VILLAGE OF RUSHVILLE

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Village of Rushville from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Village of Rushville is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Village of Rushville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table U-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-22).

**Table U-22. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Rushville	30

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Village of Rushville due to lightning are considered negligible.



ANNEX U: VILLAGE OF RUSHVILLE

**Table U-23. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Rushville	\$0	\$0

# ANNEX U: VILLAGE OF RUSHVILLE

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Village of Rushville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Rushville can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Rushville, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Rushville planning team members identified the following critical facilities (Table U-24) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Village of Rushville:

**Table U-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

The population over 65 in the Village of Rushville is estimated at 19 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 118 potentially vulnerable residents in the Village of Rushville based on age. In addition, an estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-25).

**Table U-25. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Rushville	111	17	30

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX U: VILLAGE OF RUSHVILLE

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Village of Rushville. Historical tornado events are often provided on a countywide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Village of Rushville can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Village of Rushville is “Occasional”.

### VULNERABILITY AND IMPACT

The Village of Rushville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table U-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 32 (12 percent of total housing stock) manufactured homes located in the Village of Rushville. In addition, 74 percent (approximately 193 structures) of the housing structures in the Village of Rushville were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant tornado events.

**Table U-27. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Rushville	193	32

## ANNEX U: VILLAGE OF RUSHVILLE

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-28).

**Table U-28. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Rushville	30

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate average annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Village of Rushville would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table U-29. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Village of Rushville	\$0	\$0

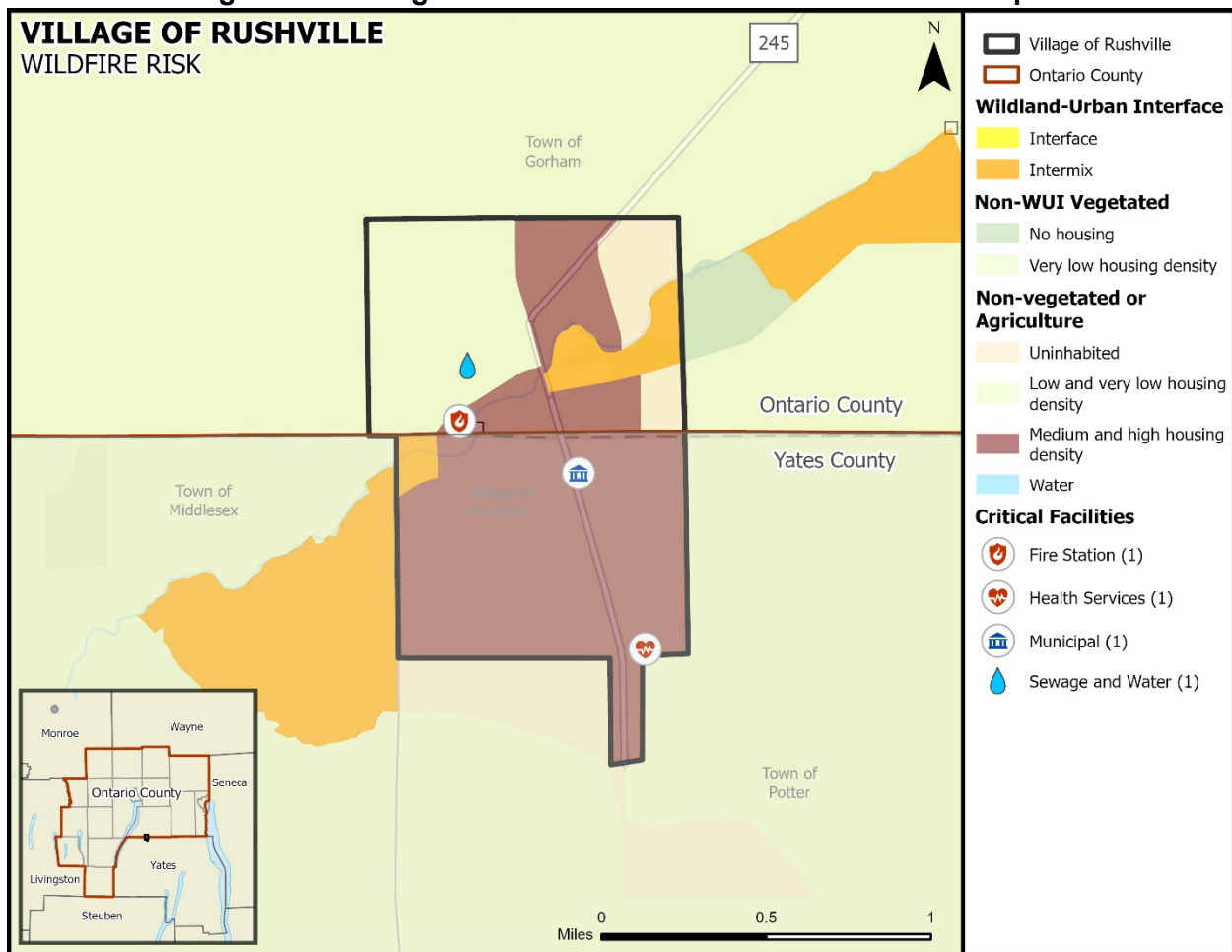
# ANNEX U: VILLAGE OF RUSHVILLE

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure U-3). The Village of Rushville planning area is considered at low risk for wildfires with limited WUI areas.

**Figure U-3. Village of Rushville Wildland Urban Interface Map<sup>10</sup>**



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>10</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX U: VILLAGE OF RUSHVILLE

of Forest Protection issues color coded danger alerts. The entire planning area, including the Village of Rushville, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

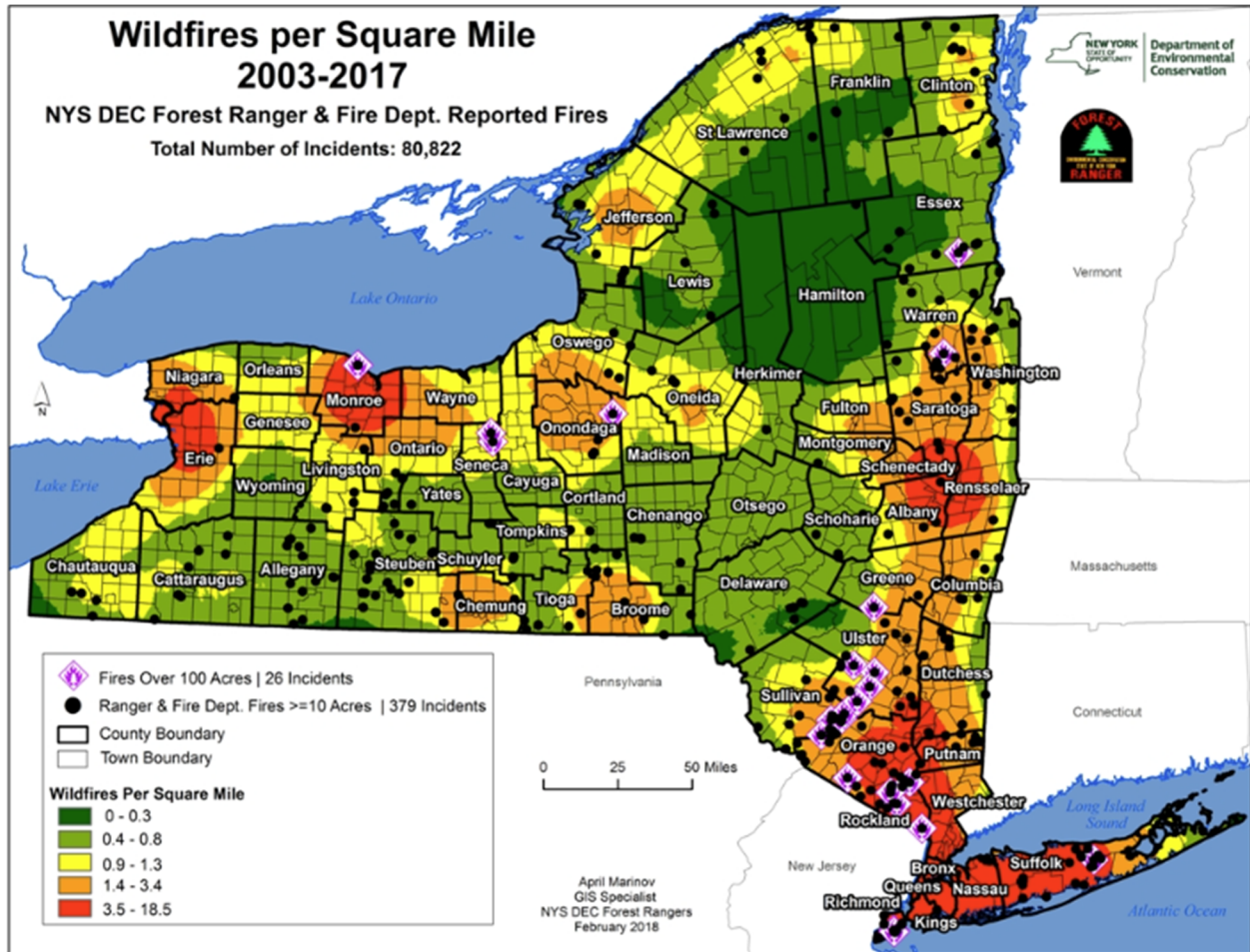
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure U-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Village of Rushville planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX U: VILLAGE OF RUSHVILLE

Figure U-4. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Village of Rushville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.



ANNEX U: VILLAGE OF RUSHVILLE

**Table U-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

For the Village of Rushville, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

# ANNEX U: VILLAGE OF RUSHVILLE

## WIND

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Since 1956, no wind events were reported to have directly impacted the Village of Rushville according to the NCEI database.

### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Rushville can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

The Village of Rushville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table U-31. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Rushville	1 Fire Station, 1 Hospital, 1 Municipal Building, 2 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 32 (12 percent of total housing stock) manufactured homes located in the Village of Rushville. In addition, 74 percent (approximately 193 structures) of the housing structures in the Village of Rushville were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant wind events.

**Table U-32. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Rushville	193	32

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Rushville’s population live below the poverty level (Table U-33).

## ANNEX U: VILLAGE OF RUSHVILLE

**Table U-33. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Rushville	30

Impact of wind events experienced in the Village of Rushville would be considered “Limited”, with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$0 damages (in 2023 dollars) in the Village of Rushville due to wind events. The estimated average annual loss from a wind event is \$0.

**Table U-34. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Rushville	\$0	\$0

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX U: VILLAGE OF RUSHVILLE

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>VR-1: Wastewater Treatment System Upgrades</b>	
<b>Name of Jurisdiction:</b>	Village of Rushville
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Easements for storm sewer - reviewing issues with outstanding storm water collection system easements.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VR-1: Upgrade water collection lines
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Improvement of storm water collection system through the purchase of easements and installation of collection lines and related facilities.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Improve the water collection system by upgrading collection system. This will result in improved stormwater management. Lessen chance of improper filtration at WWTP by regulating capacity.
<b>Estimated Cost:</b>	\$75,000 for new collection lines once all easements have been obtained.
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Public Works Supervisor
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	NYS Department of State
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Public Works Operations Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

# ANNEX U: VILLAGE OF RUSHVILLE

<b>Previous Action Worksheet</b>	
<b>VR-2: Stream Bank Stabilization – West River Tributary</b>	
<b>Name of Jurisdiction:</b>	Village of Rushville
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Stream bank stabilization concerns - Creek Bank Restoration/stabilization - North Main Street by sanitary manhole S-7. Manhole is near creek bank, where continuous erosion exposes it.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	VR-2: Stabilize bank of the West River
<b>Action or Project Description:</b>	Monitor erosion progress and develop plan for streambank stabilization
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	Eliminate possibility of river water intrusion into the stormwater collection system Staff time to monitor potential erosion near the manhole cover and develop cost estimate and timetable for bank stabilization based on encroachment observations
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Department of Public Works
<b>Action/Project Priority:</b>	Low
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	Annual Budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	DPW Operations Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

# ANNEX U: VILLAGE OF RUSHVILLE

## NEW MITIGATION ACTIONS

VILLAGE OF RUSHVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Flood	Creek Maintenance at Railroad Ave and Warehouse St.: Creek flows through the Village and significantly heavy rain events result in unexpected flash flooding for the Village. This project protects the community and reduces the risk of flooding.	Implement a maintenance schedule to remove loose vegetation and debris to promote drainage capacity and stormwater flow.	No	Further review is required	36-60 months	Village Board	\$5,000	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget	L	Safety/Security
2	4.2	Flood	Stormwater Piping Improvements: Inadequate drainage systems cause flooding, damages to roadways, and create hazardous driving conditions for motorists. This project protects the community and reduces the risk of flooding.	Assess and make necessary upgrades to current stormwater drainage system. Remove sump pump connections to sanitary sewer.	No	Further review required	24 months	Village Board	\$50,000	Reduce flood risk through improved drainage capacity; Reduce risk of damages and injuries; Reduce emergency response demands.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
3	1.4	Flood	Village-wide creek stabilization program: Loose vegetation mix and sedimentation by with drainage water and cause damming and plugged culverts. When this occurs, flood water escapes the existing drainage network, causing significant damage to public and private property. Recovery efforts are time consuming and labor intensive. This project protects the community and reduces the risk of flooding.	Reduce effects of erosion and sedimentation by requiring erosion/sedimentation controls for new construction; Include on-site sediment retention as a development requirement, adding thick vegetation to public lands along riverbanks, retain/maintain natural vegetation in stormwater channels	No	Further review required	24 – 48 months	Village Board	\$75,000	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security

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VILLAGE OF RUSHVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
4	1.4	Wildfire, Fire	Water main value and hydrant maintenance program: Limited maintenance protocol currently in place for these critical infrastructures.	Implement a routine maintenance program for fire hydrants and main water value.	No	Further review required	24 months	Village Board and Local Fire Department	Staff Time	Reduce risk and spread of wildfires through routine maintenance of fire hydrants; Reduce risk of injury or damages.	Local Department Budget	M	Safety/Security, Food/Water/ Shelter
5	4.2	Flood, Water Supply Contamination	Wastewater Treatment System Upgrades: Assessment of current issues with outstanding storm water collection system easements. This project protects infrastructure, reduces cost of repair, and prevents injury to residents.	Improvement of storm water collection system through the purchase of easements and installation of collection lines and related facilities.	Yes	Further review required	24-36 months	Village Public Works	Staff Time \$75,000 for new collection lines once all easements have been obtained.	Reduce risk of flood water contamination; Reduce risk of surface water infiltration and sewage backup; Ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security, Food/Water/ Shelter
6	5.4	Flood	West River Tributary Stream Bank Stabilization: Creek Bank Restoration/stabilization at North Main Street by sanitary manhole S-7. Manhole is near creek bank, where continuous erosion exposes it. This project protects the community and reduces risk of flooding.	Monitor erosion progress and develop plan for streambank stabilization	No	Further review required	24-36 months	Village Public Works	Staff Time	Reduce risk of flood damages through improved drainage capacity/stormwater diversion; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget	M	Safety/Security
7	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication



# ANNEX U: VILLAGE OF RUSHVILLE

VILLAGE OF RUSHVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
8	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX U: VILLAGE OF RUSHVILLE

VILLAGE OF RUSHVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
11	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX U: VILLAGE OF RUSHVILLE

VILLAGE OF RUSHVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Village Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
13	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Village Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX U: VILLAGE OF RUSHVILLE

VILLAGE OF RUSHVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
14	3.3	Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Village Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
15	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc. Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Village Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Village Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX U: VILLAGE OF RUSHVILLE

VILLAGE OF RUSHVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
17	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Village Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
18	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Village Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX U: VILLAGE OF RUSHVILLE

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Village of Rushville
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	X
Stormwater Management Plan	X
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX U: VILLAGE OF RUSHVILLE

COMMUNITY CAPABILITY CHECKLIST	Village of Rushville
Fire Codes	
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	X
Mutual Aid Agreement	X



## ANNEX U: VILLAGE OF RUSHVILLE

COMMUNITY CAPABILITY CHECKLIST	Village of Rushville
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	X
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	X
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	X
Environmental Conservation Specialist	X
Floodplain Administrator	X
GIS Specialist	X
Personnel with Hazard Knowledge	
Planners	X
Public Information Official	X
Resource Development/ Grant Writer	X



Ontario County  
NEW YORK



ANNEX V  
TOWN OF SENECA



ANNEX V: TOWN OF SENECA

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# ANNEX V: TOWN OF SENECA

## JURISDICTION PROFILE

### OVERVIEW

The Town of Seneca is in Ontario County, New York and has a population of just over 2,600. The town is on the southern border of the county and southwest of the City of Geneva. According to the United States Census Bureau, the town has a total area of 50.4 square miles, all land. The southern town line is the border of Yates County. The town is in the Finger Lakes region and is northwest of Seneca Lake. U.S. Route 20 and New York State Route 5 pass through the town. The New York State Route 14A is a north-south highway in the town. New York State Route 245 is an east-west highway in the town. Figure V-1 shows the general location of the Town of Seneca.

## TOWN OF SENECA CONTACT INFORMATION

Name: Drew Wichham

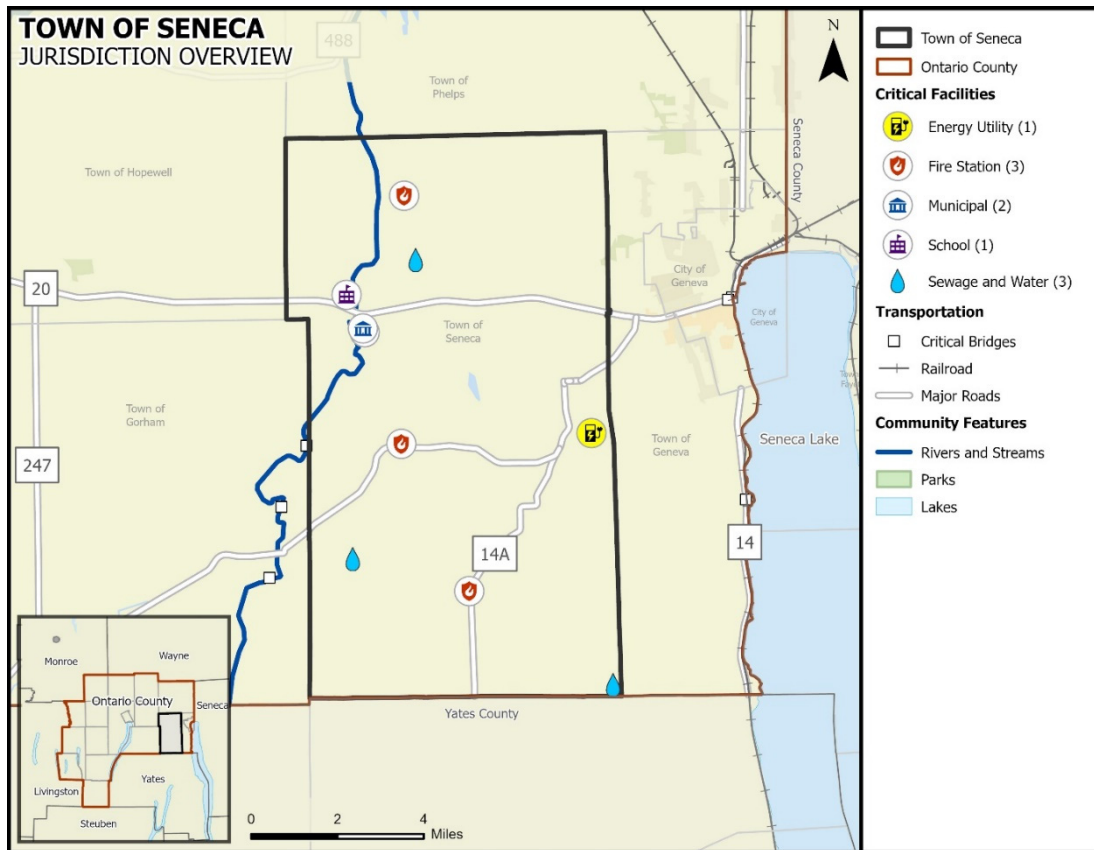
Title: Town Supervisor

Phone: (585) 526-5251

Address: 3675 Flint Rd, Stanley, NY 14561

Email: [supervisor@townofseneca.com](mailto:supervisor@townofseneca.com)

Figure V-1. Town of Seneca Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

## ANNEX V: TOWN OF SENECA

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Seneca has an official population of 2,644 residents, a 2.8 percent decrease since the 2010 census. Table V-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Seneca using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table V-1. Population Distribution for the Town of Seneca**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Seneca	2,721	2,672	-1.8%	151	482	142

### POPULATION GROWTH

The official 2020 Town of Seneca population is 2,644. Overall, the Town of Seneca experienced a decrease in population between 1990 and 2020 of 3.7 percent, or a decrease by 103 residents. Between 2010 and 2020, the Town of Seneca experienced a population decline. Table V-2 provides historic change rates in the Town of Seneca.

**Table V-2. Population Growth for the Town of Seneca, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Seneca	2,747	2,731	2,721	2,644	-103	-3.7%	-77	-2.8%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Seneca might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX V: TOWN OF SENECA

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table V-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

**Table V-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table V-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table V-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Seneca	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Seneca’s website. A total of three surveys were completed for the Town of Seneca.

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX V: TOWN OF SENECA

Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Seneca's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.



## ANNEX V: TOWN OF SENECA

### HAZARD PROFILES

#### DAM FAILURE

The Town of Seneca is not profiling dam failure. The Town of Seneca does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

## ANNEX V: TOWN OF SENECA

### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Seneca, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Seneca can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Seneca, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Seneca planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Town of Seneca:

**Table V-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

The population over 65 in the Town of Seneca is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 633 potentially vulnerable residents in the Town of Seneca based on age. In addition, an estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-6).

**Table V-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Seneca	482	151	142

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX V: TOWN OF SENECA

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Seneca, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Seneca can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Seneca, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Seneca planning team members identified the following critical facilities (Table V-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Town of Seneca:

**Table V-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

The population over 65 in the Town of Seneca is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 633 potentially vulnerable residents in the Town of Seneca based on age. In addition, an estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-8).

**Table V-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Seneca	482	151	142

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX V: TOWN OF SENECA

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Seneca, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Seneca can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Seneca, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Seneca planning team members identified the following critical facilities (Table V-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Town of Seneca:

**Table V-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

The population over 65 in the Town of Seneca is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 633 potentially vulnerable residents in the Town of Seneca based on age. In addition, an estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-10).

**Table V-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Seneca	482	151	142

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

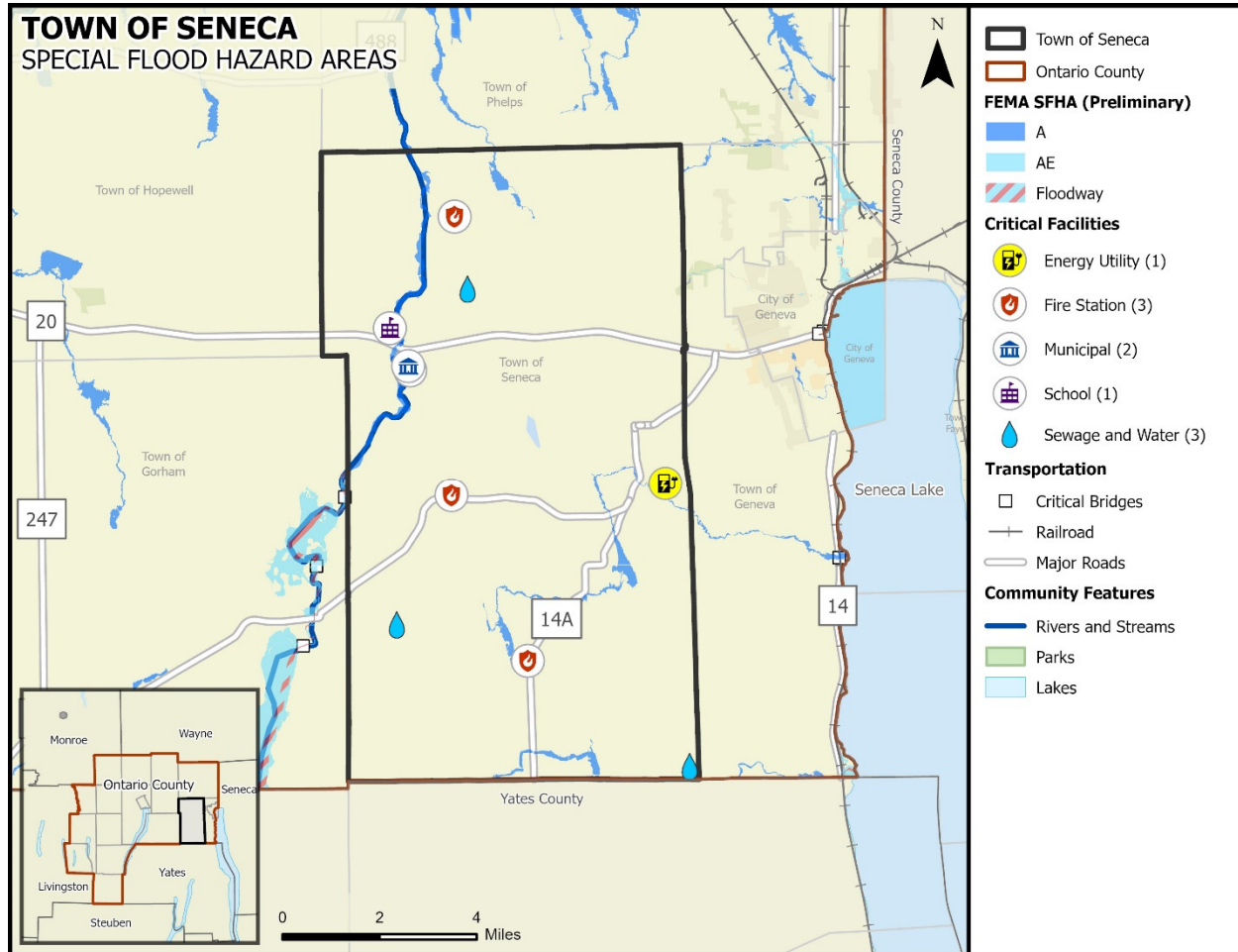
# ANNEX V: TOWN OF SENECA

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard boundary maps with no established base flood elevations are available in the Town of Seneca. The location of estimated flood zones for the Town of Seneca, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure V-2.

Figure V-2. Estimated Flood Zones in the Town of Seneca<sup>8</sup>



### HISTORICAL OCCURRENCES

Table V-11 provides the historical occurrences of flood events for the Town of Seneca according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, one flood event was known to have impacted the Town of Seneca, based upon NCEI records. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX V: TOWN OF SENECA

**Table V-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Seneca	7/28/2014	0	0	\$43,509	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$43,509</b>	<b>\$0</b>

Based on the list of historical flood events for the Town of Seneca, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Seneca can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Seneca planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. No critical facilities in the Town of Seneca are located in the floodplain.

Historic loss estimates due to flood are presented in Table V-12 below.

**Table V-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Seneca	1	\$43,509	\$1,582

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table V-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Seneca	142

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table V-14 depicts the level of impact for the Town of Seneca.

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX V: TOWN OF SENECA

**Table V-14 Town of Seneca Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Seneca	Limited	It is anticipated that the Town could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Seneca currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Seneca has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Seneca as a low-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Seneca Zoning/Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table V-15 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table V-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Seneca	5/10/2021	N/A	Good Standing	2

### *REPETITIVE LOSS*

The Town of Seneca currently has no repetitive loss or severe repetitive loss properties.



# ANNEX V: TOWN OF SENECA

## HAIL

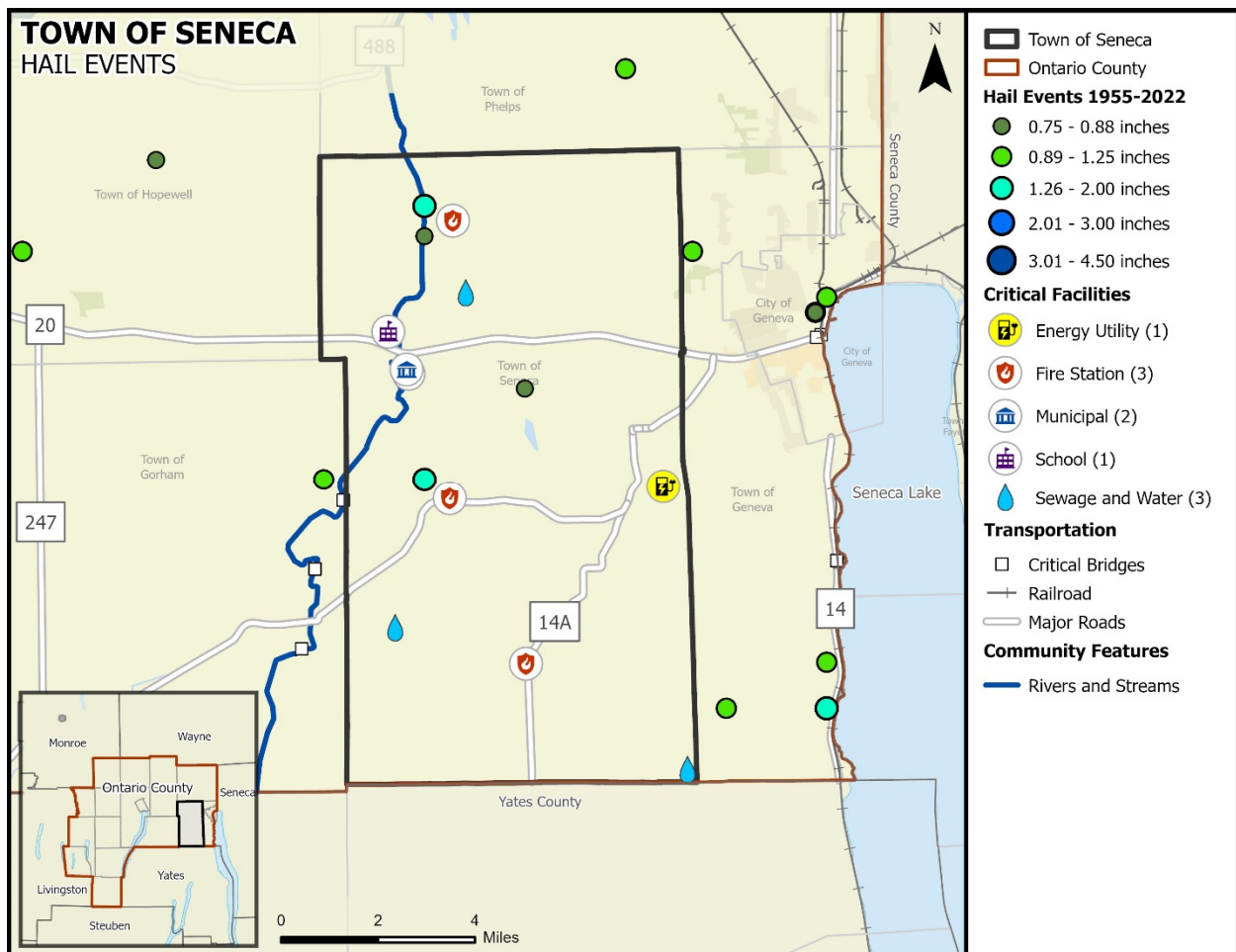
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure V-3 demonstrates that the Town of Seneca is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table V-16. A total of four reported historical hail events impacted the Town of Seneca between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of Seneca with latitude and longitude available were plotted (Figure V-3).

**Figure V-3. Historical Hail Events, 1956-2023<sup>11</sup>**



<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX V: TOWN OF SENECA

**Table V-16. Historical Hail Events, 1956-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Seneca	4/18/2004	0.75	0	0	\$157,538	\$0
	6/22/2011	1.25	0	0	\$10,497	\$0
	5/21/2013	1.75	0	0	\$6,357	\$12,714
	5/21/2013	2	0	0	\$6,357	\$12,714
<b>TOTALS</b>		<b>2 (Max Extent)</b>	<b>0</b>	<b>0</b>	<b>\$180,749</b>	<b>\$25,428</b>

Based on the list of historical hail events for the Town of Seneca, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Seneca can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Seneca planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table V-17. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 58 (5 percent of total housing stock) manufactured homes located in the Town of Seneca. In addition, 70 percent (approximately 804 structures) of the housing structures in the Town of Seneca were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table V-18. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of Seneca	58	804

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX V: TOWN OF SENECA

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-19).

**Table V-19. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Seneca	142

Overall, the total estimate of property and crops in the Town of Seneca is \$206,117 with an average annualized loss of \$3,077. Based on historic loss and damages, the impact of hail damages on the Town of Seneca can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table V-20. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Seneca	\$206,177	\$3,077

## ANNEX V: TOWN OF SENECA

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Seneca, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Seneca can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Seneca, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Seneca planning team members identified the following critical facilities (Table V-21) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Town of Seneca:

**Table V-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

The population over 65 in the Town of Seneca is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 633 potentially vulnerable residents in the Town of Seneca based on age. In addition, an estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-22).

**Table V-22. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Seneca	482	151	142

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX V: TOWN OF SENECA

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of Seneca is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Seneca over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Seneca.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX V: TOWN OF SENECA

### LIGHTNING

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

There has been one recorded lightning event in the Town of Seneca from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

**Table V-23. Historical Lightning Events, 1996-2023<sup>13</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Seneca	8/3/2003	0	0	\$24,066	\$0
<b>TOTALS</b>		0	0	\$24,066	\$0

Based on the list of historical lightning events for the Town of Seneca, there have been no reported events since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Seneca is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### *VULNERABILITY AND IMPACT*

The Town of Seneca planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table V-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term

<sup>13</sup> Historical events are reported from January 1996 through June 2023; values are in 2023 dollars.

## ANNEX V: TOWN OF SENECA

stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-25).

**Table V-25. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Seneca	142

Historical losses and damages as a result of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average loss estimate for the Town of Seneca (in 2023 dollars) is considered \$24,066 with an average annualized loss of \$875 (Table V-26).

**Table V-26. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Seneca	\$24,066	\$875



## ANNEX V: TOWN OF SENECA

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Seneca, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Seneca can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Seneca, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Seneca planning team members identified the following critical facilities (Table V-27) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Town of Seneca:

**Table V-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

The population over 65 in the Town of Seneca is estimated at 18 percent of the Town’s total population and children under the age of 5 are estimated at 6 percent, or an estimated total of 633 potentially vulnerable residents in the Town of Seneca based on age. In addition, an estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-28).

**Table V-28. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Seneca	482	151	142

Historic losses are reported on a county-wide basis for snow storm events. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX V: TOWN OF SENECA

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Town of Seneca. Historical tornado events are often provided on a countywide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of Seneca can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Town of Seneca is “Occasional”.

### VULNERABILITY AND IMPACT

The Town of Seneca planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table V-29. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 58 (5 percent of total housing stock) manufactured homes located in the Town of Seneca. In addition, 70 percent (approximately 804 structures) of the housing structures in the Town of Seneca were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant tornado events.

**Table V-30. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of Seneca	58	804

## ANNEX V: TOWN OF SENECA

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-31).

**Table V-31. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Seneca	142

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate average annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Town of Seneca would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table V-32. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Seneca	\$0	\$0

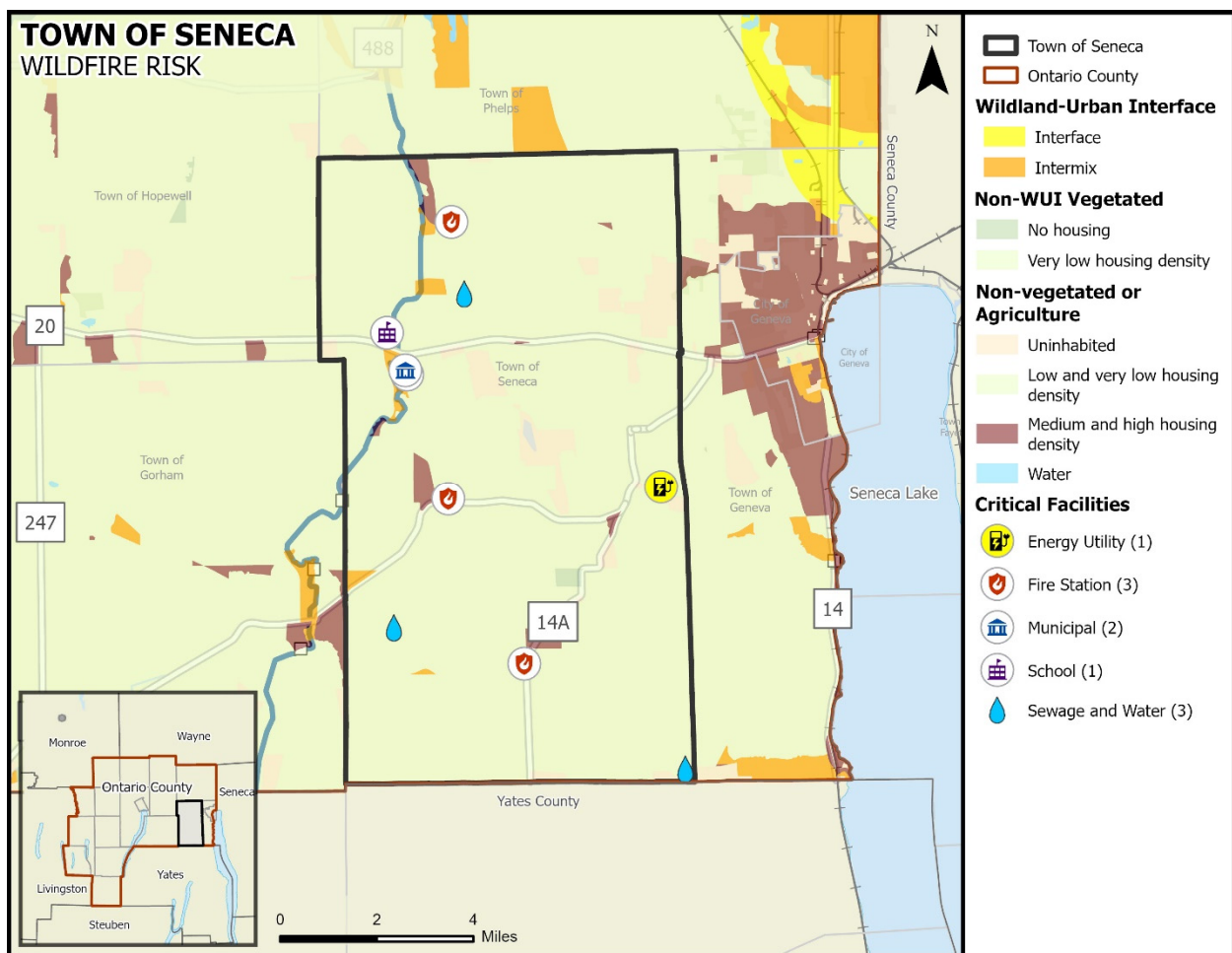
# ANNEX V: TOWN OF SENECA

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure V-4). The Town of Seneca planning area is considered at low risk for wildfires with limited WUI areas.

Figure V-4. Town of Seneca Wildland Urban Interface Map<sup>14</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>14</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX V: TOWN OF SENECA

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Seneca, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

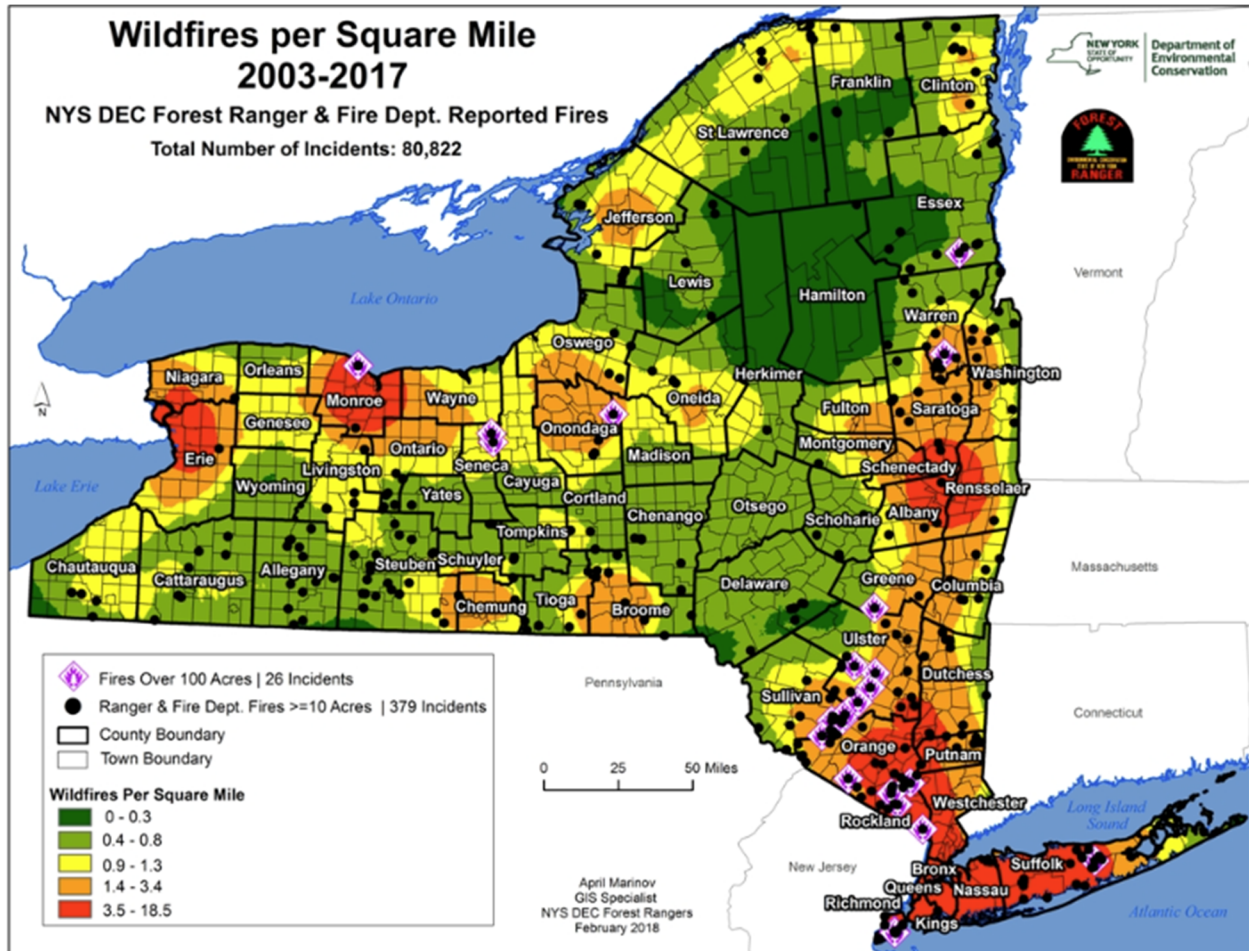
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure V-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Town of Seneca planning area can anticipate limited future wildfire events, burning less than 10 acres.

## ANNEX V: TOWN OF SENECA

Figure V-5. Wildfires per Square Mile, 2003-2017



### *HISTORICAL OCCURRENCES*

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

### *VULNERABILITY AND IMPACT*

The Town of Seneca planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.



## ANNEX V: TOWN OF SENECA

**Table V-33. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

For the Town of Seneca, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.



## ANNEX V: TOWN OF SENECA

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, four wind events are known to have occurred in the Town of Seneca. Table V-34 presents information on known historical events impacting the Town of Seneca.

**Table V-34. Historical Wind Events, 1968-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Seneca	8/8/2005	10	0	0	\$15,080	\$0
	6/16/2017	50	0	0	\$12,091	\$0
	6/16/2017	50	0	0	\$14,509	\$0
	5/15/2020	50	0	0	\$2,310	\$0
<b>TOTALS</b>		<b>50 (MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$43,990</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of Seneca, one of the reported events has occurred since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Seneca can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

#### VULNERABILITY AND IMPACT

The Town of Seneca planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table V-35. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Seneca	1 Energy Utility Facility, 3 Fire Stations, 2 Municipal Buildings, 1 School, 3 Sewage and Water Facilities

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 58 (5 percent of total housing stock) manufactured homes located in the Town of Seneca. In addition,

<sup>15</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX V: TOWN OF SENECA

70 percent (approximately 804 structures) of the housing structures in the Town of Seneca were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant wind events.

**Table V-36. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of Seneca	58	804

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Town of Seneca’s population live below the poverty level (Table V-37).

**Table V-37. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Seneca	142

Impact of wind events experienced in the Town of Seneca would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$43,990 damages (in 2023 dollars) in the Town of Seneca due to wind events. The estimated average annual loss from a wind event is \$652.

**Table V-38. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of Seneca	\$43,990	\$652

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX V: TOWN OF SENECA

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TS-1: Stormwater Drainage Survey Implementation</b>	
<b>Name of Jurisdiction:</b>	Town of Seneca
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Hamlet of Stanley has significant stormwater drainage issues on West Main Street near Short Rd and Washburn Ave. Significant rain events occur while the soil is saturated which results in area flooding. Culverts are undersized.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	The Ontario County Soil and Water District completed a storm water drainage survey in 2014. Deficiencies include: <ol style="list-style-type: none"> <li>1) Under sized road culverts</li> <li>2) The combination of field drainage improvements and grade results in a rapid accumulation of storm water during a significant rain event</li> </ol>
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TS-1: Stormwater Drainage Survey Implementation
<b>Name of Action or Project:</b>	TS-1: Stormwater Drainage Survey Implementation
<b>Action or Project Description:</b>	Full implementation of OCSWDs recommended improvements: <ol style="list-style-type: none"> <li>1) Replace/enlarge road culverts (especially NYS Route 14)</li> <li>2) Two retention ponds</li> <li>3) Redirect storm water along state highway</li> </ol>
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	The full implementation of the OCSWDs recommendation is cost prohibitive. Redirecting and resizing the road culvert along State Route 14 will require coordination with NYSDOT. The placement of two retaining ponds on private property further complicates full implementation. Cost of \$100,000 for all projects but would improve with storm water management.
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Seneca
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	NYS DEC
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Not Applicable
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Completed. Town chose to reroute water around the village of Stanley through 2 retention ponds and storm system north of Stanley.

ANNEX V: TOWN OF SENECA

<b>Previous Action Worksheet</b>	
<b>TS-2: Municipal solid waste transfer station operations</b>	
<b>Name of Jurisdiction:</b>	Town of Seneca
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Landfill is approaching maximum capacity; 13 years at the current intake rate. The county landfill currently receives approximately 100K tons of MSW from the Town and 1M tons of MSW county-wide. The future disposition of MSW will need to be determined before the cessation of landfill operations. The town MSW transfer station is currently managed by the landfill operator as a host benefit to the town.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Alternative methods of solid waste management; <ol style="list-style-type: none"> <li>1) Pay-to-throw, contracted, transfer station operations               <ol style="list-style-type: none"> <li>a. Summary; Tradition method of small municipal MSW disposition. Combine this effort with reduce/recycle/reuse efforts at the local level</li> </ol> </li> <li>2) Region wide composting, region wide digester, enhanced landfill gas to energy, reduction of solid waste, landfill expansion, etc.               <ol style="list-style-type: none"> <li>a. Summary; Would require a private-public effort for implementation and sustainment</li> </ol> </li> </ol>
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TS-2: Municipal solid waste transfer station operations
<b>Name of Action or Project:</b>	TS-2: Municipal solid waste transfer station operations
<b>Action or Project Description:</b>	The Town of Seneca MSW transfer station operations will be contracted with a private entity by Dec 2028.
<b>Summary of Evaluation Benefits (losses avoided):</b>	An evaluation is yet to be accomplished. The implied benefit includes the appropriate disposition of the Town’s MSW in an efficient, environmentally responsible manner.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town of Seneca Town Board
<b>Action/Project Priority:</b>	Tier III
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	Constituent fees, town general fund, county landfill revenue distribution
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Town Board, augmentation from County Planning Directorate
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Delete Action. Landfill slated to close in 2029.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX V: TOWN OF SENECA

<b>Previous Action Worksheet</b>	
<b>TS-3: Create a town-wide drainage district</b>	
<b>Name of Jurisdiction:</b>	Town of Seneca
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Improved agricultural field drainage and clearing has resulted in existing road drainage systems being inundated during significant rain events while the soil is saturated.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Information not reflected in 2018 Plan
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TS-3: Create a town-wide drainage district
<b>Name of Action or Project:</b>	TS-3: Create a town-wide drainage district
<b>Action or Project Description:</b>	The establishment of a town-wide drainage district. The town possesses the necessary competencies for managing a town-wide drainage district.
<b>Summary of Evaluation Benefits (losses avoided):</b>	Improved stormwater management. \$25,000 for a Phase 1 study Complications: funding the improvements, additional equipment and labor, community buy-in and the fairness of prioritizing drainage improvements.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Public Works Department
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	NYS DEC
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Floodplain management program
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

# ANNEX V: TOWN OF SENECA

## NEW MITIGATION ACTIONS

TOWN OF SENECA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Flood	Town-wide Drainage District: Improved agricultural field drainage and clearing has resulted in existing road drainage systems being inundated during significant rain events while the soil is saturated. Concerns community buy-in and prioritizing drainage improvements. This project will protect the community and reduce risk of flooding.	Improve stormwater management by completing a study to assess town-wide drainage district. Implement necessary recommendations.	No	Further review required	24-36 months	Town Board and Public Works Department	\$25,000 for a Phase 1 study.	Reduce risk of flood water contamination; Reduce risk of surface water infiltration and sewage backup; Ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security
2	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
3	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX V: TOWN OF SENECA

TOWN OF SENECA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.									
4	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
5	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX V: TOWN OF SENECA

TOWN OF SENECA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.									
6	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting	No	N/A	36 months	Town Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX V: TOWN OF SENECA

TOWN OF SENECA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).									
8	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
9	3.3	Drought, Flood, Hail, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
10	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX V: TOWN OF SENECA

TOWN OF SENECA PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc. Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.									
11	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
12	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
13	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.		No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX V: TOWN OF SENECA

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Seneca
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX V: TOWN OF SENECA

COMMUNITY CAPABILITY CHECKLIST	Town of Seneca
Fire Codes	
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	

## ANNEX V: TOWN OF SENECA

COMMUNITY CAPABILITY CHECKLIST	Town of Seneca
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	



**ANNEX W**  
**VILLAGE OF**  
**SHORTSVILLE**



# ANNEX W: VILLAGE OF SHORTSVILLE

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  - Population and Demographics ..... 3
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  - Future Development ..... 3
  - Plan Maintenance ..... 4
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# ANNEX W: VILLAGE OF SHORTSVILLE

## JURISDICTION PROFILE

### OVERVIEW

The Village of Shortsville is in Ontario County NY and has a population of approximately 1,400. The Village of Shortsville encompasses the southwestern part of the Town of Manchester and is located north of the City of Canandaigua. According to the United States Census Bureau, the village has a total of 0.06 square miles, all land. County Road 13, which is Main Street in the Village of Shortsville, intersects New York State Route 21 in the western side of the village. Shortsville is approximately two miles south of both the New York Thruway and New York State Route 96. The Village of Shortsville is immediately south of the Village of Manchester. Figure W-1 shows the general location of the Village of Shortsville.

## VILLAGE OF SHORTSVILLE CONTACT INFORMATION

Name: Fred Mink

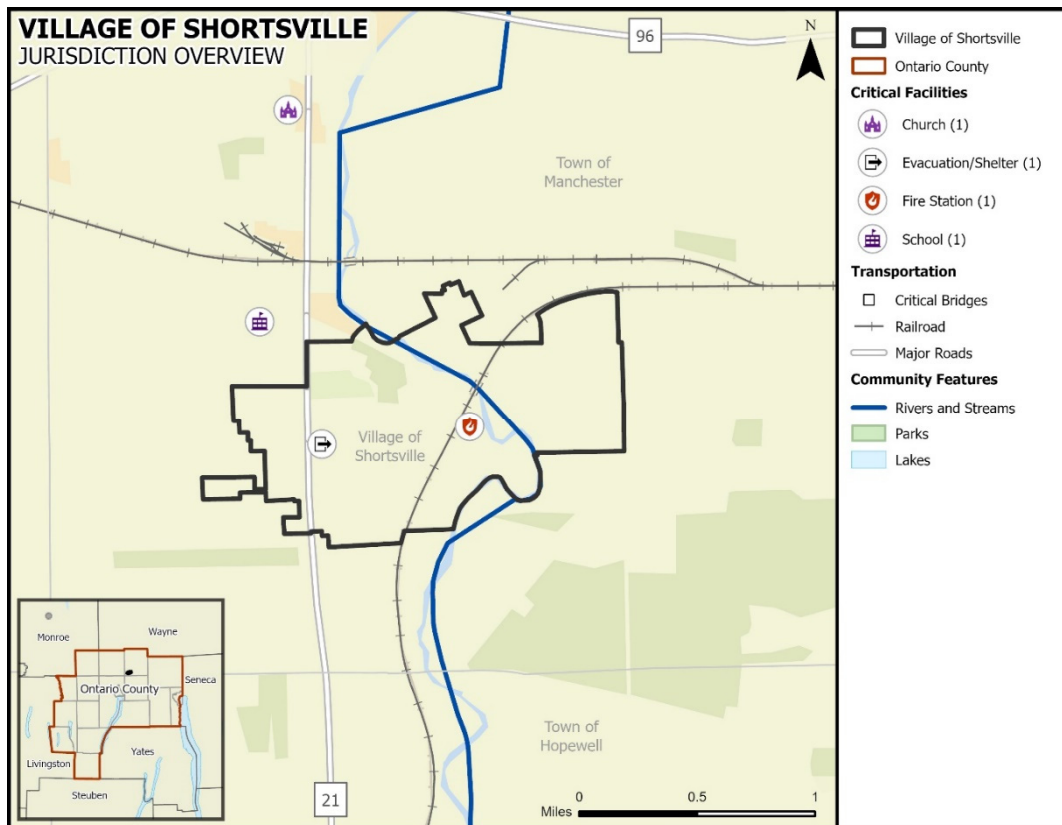
Title: Mayor

Phone: (585) 289-6103

Address: 6 East Main Street, Shortsville, NY 14548

Email: [mayor@shortsvilleny.us](mailto:mayor@shortsvilleny.us)

Figure W-1. Village of Shortsville Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

## ANNEX W: VILLAGE OF SHORTSVILLE

### POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Village of Shortsville has an official population of 1,400 residents, a 2.7 percent decrease since the 2010 census. Table W-1 summarizes select characteristics of vulnerable or sensitive populations in the Village of Shortsville using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table W-1. Population Distribution for the Village of Shortsville**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Village of Shortsville	1,439	1,831	27.2%	56	297	103

### POPULATION GROWTH

The official 2020 Village of Shortsville population is 1,400. Overall, the Village of Shortsville experienced a decrease in population between 1990 and 2020 of 5.7 percent, or a decrease of 85 residents. Between 2010 and 2020, the Village of Shortsville experienced a population decline. Table W-2 provides historic change rates in the Village of Shortsville.

**Table W-2. Population Growth for the Village of Shortsville, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Village of Shortsville	1,485	1,320	1,439	1,400	-85	-5.7%	-39	-2.7%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Village of Shortsville might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX W: VILLAGE OF SHORTSVILLE

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table W-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

**Table W-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table W-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table W-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Village of Shortsville	Mayor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Village of Shortsville’s website. A total of two surveys were completed for the Village of

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX W: VILLAGE OF SHORTSVILLE

Shortsville. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Village of Shortsville's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX W: VILLAGE OF SHORTSVILLE

### HAZARD PROFILES

#### DAM FAILURE

The Village of Shortsville is not profiling dam failure. The Village of Shortsville does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX W: VILLAGE OF SHORTSVILLE

## DROUGHT

### HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Village of Shortsville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### PROBABILITY OF FUTURE EVENTS

According to historical records for the Ontario County planning area, the Village of Shortsville can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### VULNERABILITY AND IMPACT

While the entirety of the Ontario County planning area, including the Village of Shortsville, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Village of Shortsville planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Village of Shortsville:

**Table W-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

The population over 65 in the Village of Shortsville is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 353 potentially vulnerable residents in the Village of Shortsville based on age. In addition, an estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-6).

**Table W-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	297	56	104

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.



# ANNEX W: VILLAGE OF SHORTSVILLE

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Village of Shortsville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Shortsville can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Shortsville, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Shortsville planning team members identified the following critical facilities (Table W-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Village of Shortsville:

**Table W-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

The population over 65 in the Village of Shortsville is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 353 potentially vulnerable residents in the Village of Shortsville based on age. In addition, an estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-8).

**Table W-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	297	56	104

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX W: VILLAGE OF SHORTSVILLE

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Village of Shortsville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Shortsville can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Shortsville, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Shortsville planning team members identified the following critical facilities (Table W-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Village of Shortsville:

**Table W-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

The population over 65 in the Village of Shortsville is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 353 potentially vulnerable residents in the Village of Shortsville based on age. In addition, an estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-10).

**Table W-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	297	56	104

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

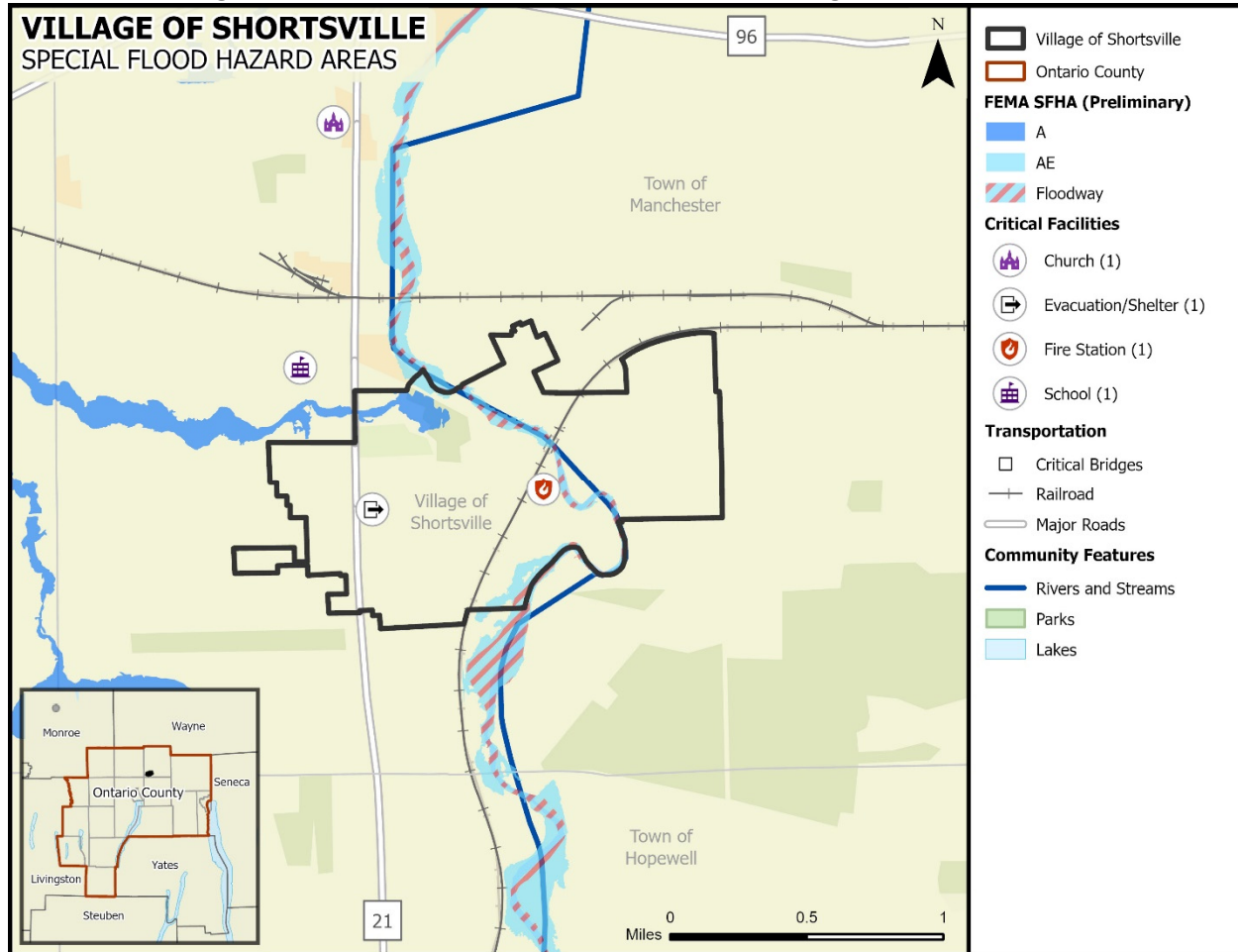
# ANNEX W: VILLAGE OF SHORTSVILLE

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Village of Shortsville, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Village of Shortsville, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure W-2.

**Figure W-2. Estimated Flood Zones in the Village of Shortsville<sup>8</sup>**



### HISTORICAL OCCURRENCES

According to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County, no flood events were reported to have impacted the Village of Shortsville from January 1996 through to August 2023. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX W: VILLAGE OF SHORTSVILLE

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Shortsville can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Shortsville planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. No critical facilities in the Village of Shortsville are located in the floodplain.

Historic loss estimates due to flood are presented in Table W-11 below.

**Table W-11. Potential Annualized Losses, 1996-2023<sup>9</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Shortsville	0	\$0	\$0

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-12). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table W-12. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	103

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table W-13 depicts the level of impact for the Village of Shortsville.

**Table W-13. Village of Shortsville Impact**

JURISDICTION	IMPACT	DESCRIPTION
Village of Shortsville	Limited	It is anticipated that the Village could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

<sup>9</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX W: VILLAGE OF SHORTSVILLE

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Village of Shortsville currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Village of Shortsville has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Village of Shortsville as a low-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Village of Shortsville Zoning Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlined in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community's participation in the NFIP
- Keeping records of construction in the floodplain

Table W-14 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table W-14. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Village of Shortsville	N/A	N/A	Good Standing	6

### *REPETITIVE LOSS*

The Village of Shortsville currently has no repetitive loss or severe repetitive loss properties.

## ANNEX W: VILLAGE OF SHORTSVILLE

### HAIL

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Historical evidence across the planning area demonstrates that the Village of Shortsville is vulnerable to hail events overall. However, no reported historical hail events have impacted the Village of Shortsville between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years.

#### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Shortsville can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Village of Shortsville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table W-15. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 73 (10 percent of total housing stock) manufactured homes located in the Village of Shortsville. In addition, 84 percent (approximately 599 structures) of the housing structures in the Village of Shortsville were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table W-16. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Shortsville	599	73

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-17).

## ANNEX W: VILLAGE OF SHORTSVILLE

**Table W-17. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	103

Overall, the total loss estimate of property and crops in the Village of Shortsville is \$0 with an average annualized loss of \$0. Based on historic loss and damages, the impact of hail damages on the Village of Shortsville can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table W-18. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Shortsville	\$0	\$0



## ANNEX W: VILLAGE OF SHORTSVILLE

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Village of Shortsville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Shortsville can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Shortsville, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Shortsville planning team members identified the following critical facilities (Table W-19) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Village of Shortsville:

**Table W-19. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

The population over 65 in the Village of Shortsville is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 353 potentially vulnerable residents in the Village of Shortsville based on age. In addition, an estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-20).

**Table W-20. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	297	56	104

Historic losses are often reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX W: VILLAGE OF SHORTSVILLE

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Village of Shortsville is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Village of Shortsville over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Village of Shortsville.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX W: VILLAGE OF SHORTSVILLE

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Village of Shortsville from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Village of Shortsville is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Village of Shortsville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table W-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-22).

**Table W-22. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	103

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Village of Shortsville due to lightning are considered negligible.

ANNEX W: VILLAGE OF SHORTSVILLE

Table W-23. Potential Annualized Losses

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Shortsville	\$0	\$0

# ANNEX W: VILLAGE OF SHORTSVILLE

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Village of Shortsville, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Shortsville can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Shortsville, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Shortsville planning team members identified the following critical facilities (Table W-24) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Village of Shortsville:

**Table W-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

The population over 65 in the Village of Shortsville is estimated at 16 percent of the Village’s total population and children under the age of 5 are estimated at 3 percent, or an estimated total of 353 potentially vulnerable residents in the Village of Shortsville based on age. In addition, an estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-25).

**Table W-25. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	297	56	104

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX W: VILLAGE OF SHORTSVILLE

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Village of Shortsville. Historical tornado events are often provided on a countywide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

### PROBABILITY OF FUTURE EVENTS

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Village of Shortsville can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Village of Shortsville is “Occasional”.

### VULNERABILITY AND IMPACT

The Village of Shortsville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table W-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 73 (10 percent of total housing stock) manufactured homes located in the Village of Shortsville. In addition, 84 percent (approximately 599 structures) of the housing structures in the Village of Shortsville were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant tornado events.

**Table W-27. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Shortsville	599	73

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a

## ANNEX W: VILLAGE OF SHORTSVILLE

long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-28).

**Table W-28. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	103

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate average annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Village of Shortsville would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table W-29. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Village of Shortsville	\$0	\$0



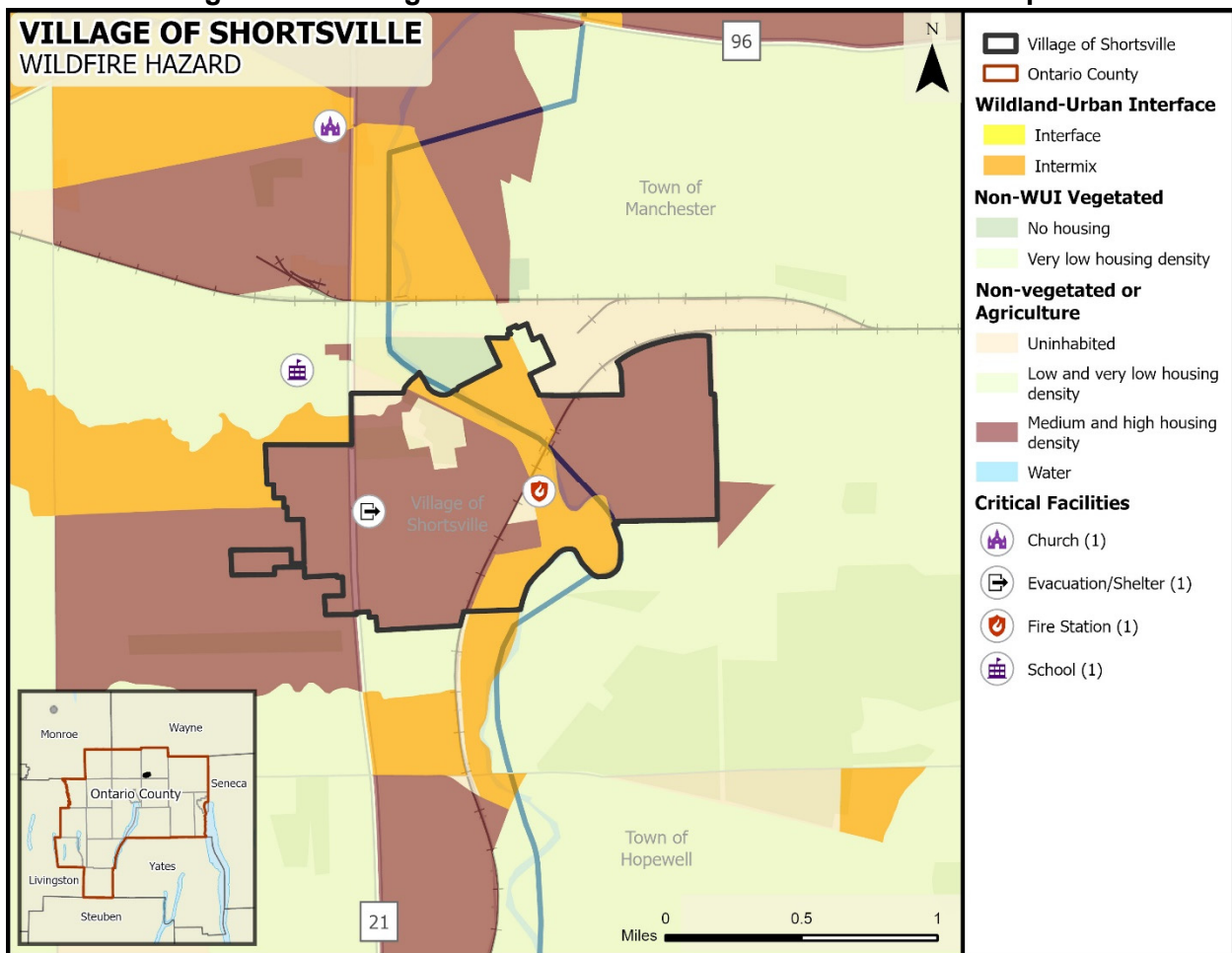
# ANNEX W: VILLAGE OF SHORTSVILLE

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure W-3). The Village of Shortsville planning area is considered at low risk for wildfires with limited WUI areas.

Figure W-3. Village of Shortsville Wildland Urban Interface Map<sup>10</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the

<sup>10</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX W: VILLAGE OF SHORTSVILLE

Village of Shortsville, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

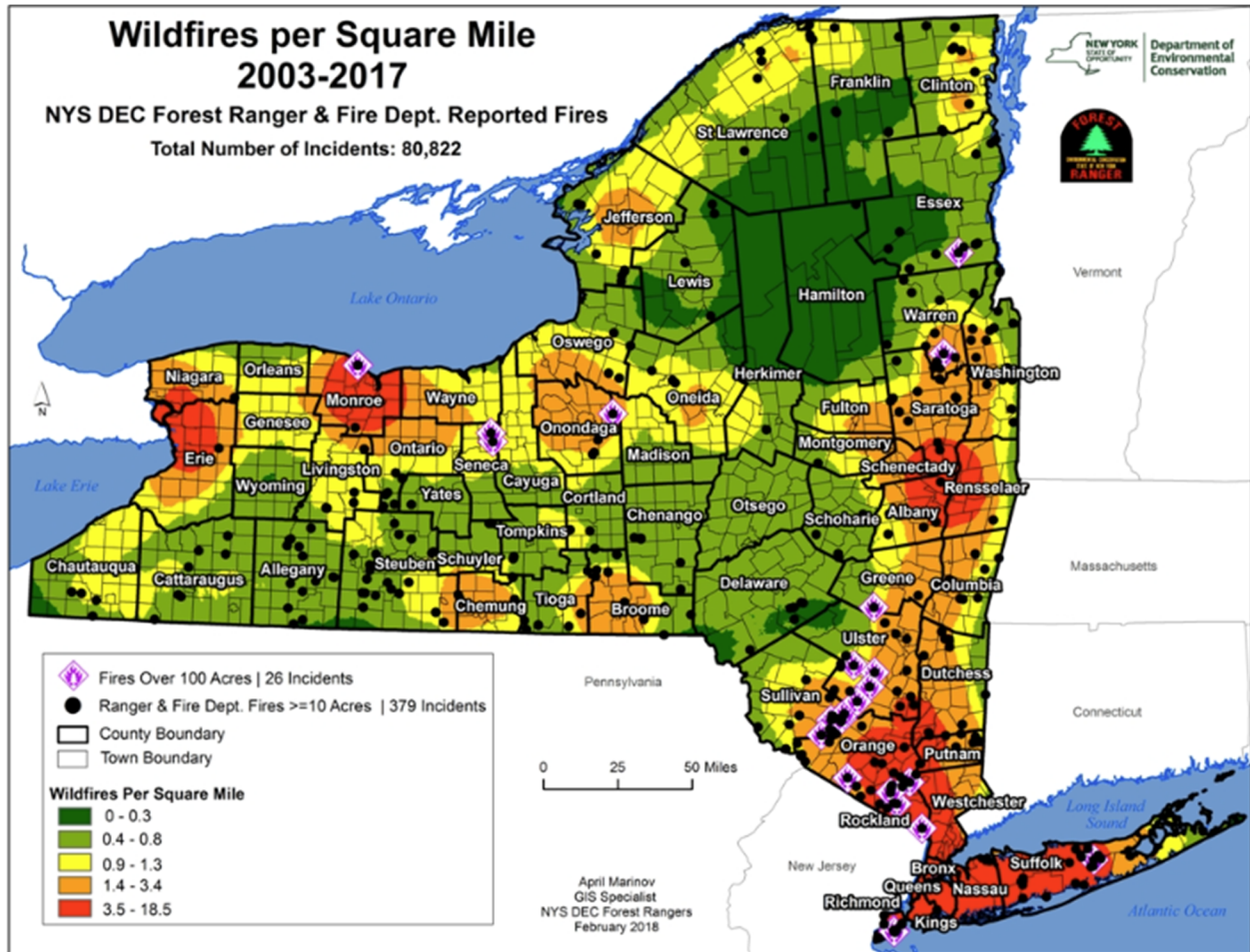
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure W-4). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Village of Shortsville planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX W: VILLAGE OF SHORTSVILLE

Figure W-4. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Village of Shortsville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.

ANNEX W: VILLAGE OF SHORTSVILLE

**Table W-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

For the Village of Shortsville, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX W: VILLAGE OF SHORTSVILLE

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, three wind events are known to have occurred in the Village of Shortsville. Table W-31 presents information on known historical events impacting the Village of Shortsville.

**Table W-31. Historical Wind Events, 1968-2023<sup>11</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Village of Shortsville	7/19/2020	51	0	0	\$6,858	\$0
	8/11/2021	51	0	0	\$1,083	\$0
	8/16/2022	51	0	0	\$514	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$8,455</b>	<b>\$0</b>

Based on the list of historical wind events for the Village of Shortsville, three of the reported events have occurred since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Shortsville can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

#### VULNERABILITY AND IMPACT

The Village of Shortsville planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table W-32. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Shortsville	1 Church, 1 Evacuation Shelter, 1 Fire Station, 1 School

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 73 (10 percent of total housing stock) manufactured homes located in the Village of Shortsville. In addition, 84 percent (approximately 599 structures) of the housing structures in the Village of Shortsville were built before 1980. These structures would typically be built to lower or less

<sup>11</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX W: VILLAGE OF SHORTSVILLE

stringent construction standards than newer construction and may be more susceptible to damages during significant wind events.

**Table W-33. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Shortsville	599	73

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 6 percent of the Village of Shortsville’s population live below the poverty level (Table W-34).

**Table W-34. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Shortsville	103

Impact of wind events experienced in the Village of Shortsville would be considered “Limited”, with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$8,455 damages (in 2023 dollars) in the Village of Shortsville due to wind events. The estimated average annual loss from a wind event is \$125.

**Table W-35. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Shortsville	\$8,455	\$125

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

## ANNEX W: VILLAGE OF SHORTSVILLE

### PREVIOUS MITIGATION ACTIONS

While the Village of Shortsville was a participant in the 2018 Plan, no mitigation actions were proposed for the Village in the previous plan. Refer to Section 25 Previous Actions, for a complete list of Ontario County's previous actions.



# ANNEX W: VILLAGE OF SHORTSVILLE

## NEW MITIGATION ACTIONS

VILLAGE OF SHORTSVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Flood	Water Street Bridge Repair/Replacement: The existing structure is in need of replacement. In addition, the hydraulic capacity of this structure may not comply with commonly accepted standards. Floodwaters can cause debris to back up at the bridge, exacerbating flooding, damaging the bridge and causing scour and erosion to embankments at the bridge site. If the bridge is out of service this would affect Red Jacket School traffic, pedestrian traffic, and emergency vehicles. This project promotes public safety.	Assess and implement necessary improvements needed for Water Street Bridge over Paddleford Creek.	No	Further review required	12-24 months	Village Board and Highway Department	\$920,000	Reduce damages to infrastructure including roadways, sidewalks, bridges, and culverts; Reduce demands on emergency response during high water events.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security, Transportation
2	3.1	Extreme Heat, Drought	Improve Household Preparedness: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX W: VILLAGE OF SHORTSVILLE

VILLAGE OF SHORTSVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	3.1	Extreme Cold, Ice Storm, Snow Storm	Improve Household Preparedness: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
4	3.1	Hail, Tornado, Wind	Improve Household Preparedness: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX W: VILLAGE OF SHORTSVILLE

VILLAGE OF SHORTSVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
5	3.1	Lightning	Improve Household Preparedness: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
6	3.1	Wildfire	Improve Household Preparedness: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX W: VILLAGE OF SHORTSVILLE

VILLAGE OF SHORTSVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
7	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Village Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
8	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Village Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX W: VILLAGE OF SHORTSVILLE

VILLAGE OF SHORTSVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
9	3.3	Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Village Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
10	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Village Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
11	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Village Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX W: VILLAGE OF SHORTSVILLE

VILLAGE OF SHORTSVILLE PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Village Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
13	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Village Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX W: VILLAGE OF SHORTSVILLE

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Village of Shortsville
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	
Construction Site Stormwater Runoff Control	
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	



## ANNEX W: VILLAGE OF SHORTSVILLE

COMMUNITY CAPABILITY CHECKLIST	Village of Shortsville
Fire Codes	
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	
Regulation for Unsafe/Defective Structures	
Sediment and Erosion Control Measures	
Site Plan Review Requirements	
Steep Slope Ordinance	
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	
Subdivision Regulations	
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	
Zoning Ordinance/Land Use Restrictions	
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	

## ANNEX W: VILLAGE OF SHORTSVILLE

COMMUNITY CAPABILITY CHECKLIST	Village of Shortsville
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	



ANNEX X  
**TOWN OF SOUTH  
BRISTOL**

ANNEX X: TOWN OF SOUTH BRISTOL

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# ANNEX X: TOWN OF SOUTH BRISTOL

## JURISDICTION PROFILE

### OVERVIEW

The Town of South Bristol is in Ontario County, New York, with a population of over 1,600. The town is in the southwestern part of the county and claims to be the smallest town (by population) in the county. According to the United States Census Bureau, the town has a total area of 42.0 square miles of which 39.1 square miles is land and 3.0 square miles is water. The eastern town line, marked by Canandaigua Lake, is the border of Yates County. North-south highways, NY 21 and NY 64 intersect in Bristol Springs. Mud Creek and Mill Creek form deep north-south valleys in the town. Figure X-1 shows the general location of the Town of South Bristol.

## TOWN OF SOUTH BRISTOL CONTACT INFORMATION

Name: Daniel Marshall

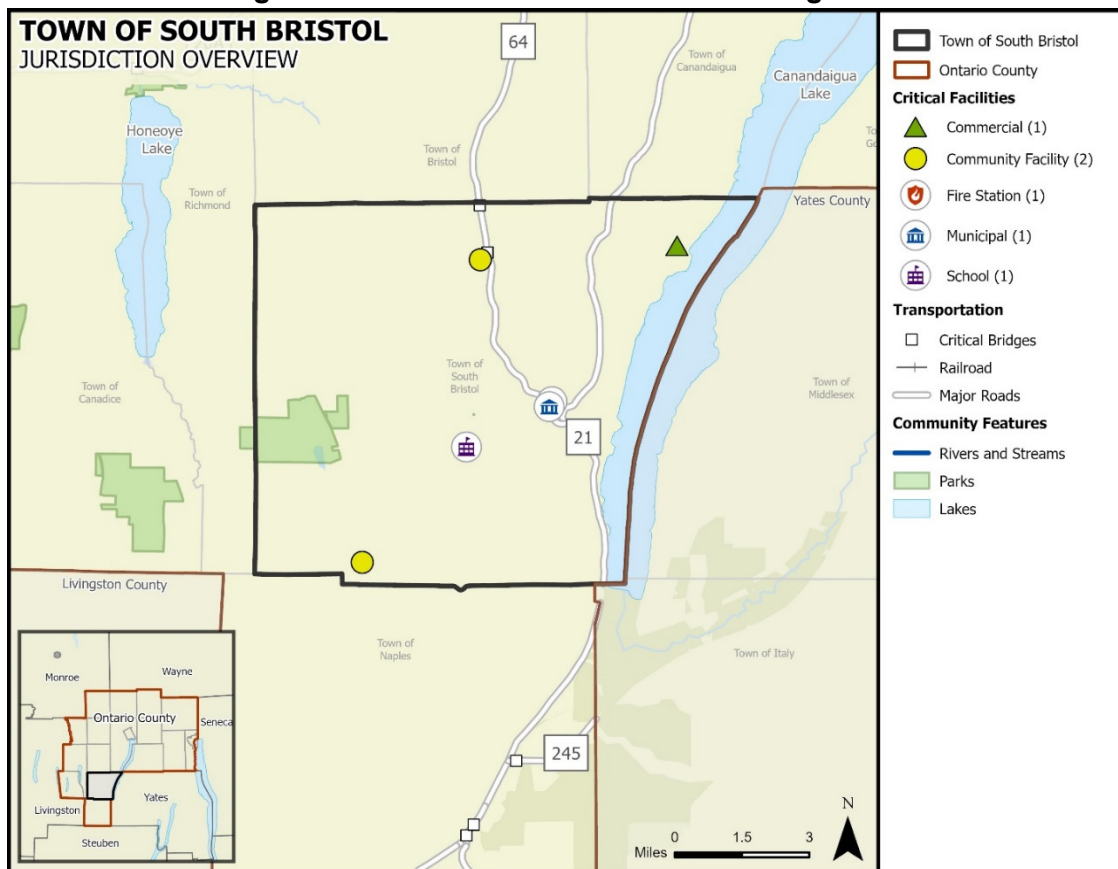
Title: Town Supervisor

Phone: (585) 374-6341

Address: 6774 County Road 12, Naples NY 14512

Email: Daniel.marshall@southbristolny.org

Figure X-1. Town of South Bristol Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

# ANNEX X: TOWN OF SOUTH BRISTOL

## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of South Bristol has an official population of 1,641 residents, a 3.2 percent increase since the 2010 census. Table X-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of South Bristol using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table X-1. Population Distribution for the Town of South Bristol**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of South Bristol	1,641	1,727	5.24%	38	539	124

## POPULATION GROWTH

The official 2020 Town of South Bristol population is 1,641. Overall, the Town of South Bristol experienced a decrease in population between 1990 and 2020 of 1.3 percent, or a decrease by 22 residents. Between 2010 and 2020, the Town of South Bristol experienced a population growth. Table X-2 provides historic change rates in the Town of South Bristol.

**Table X-2. Population Growth for the Town of South Bristol, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of South Bristol	1,663	1,645	1,590	1,641	-22	-1.3%	51	3.2%

## FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of South Bristol might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

## ANNEX X: TOWN OF SOUTH BRISTOL

efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table X-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean overall increase for the planning area.

**Table X-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table X-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table X-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of South Bristol	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of South Bristol’s website. A total of four surveys were completed for the Town of South

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>



## ANNEX X: TOWN OF SOUTH BRISTOL

Bristol. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of South Bristol's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

# ANNEX X: TOWN OF SOUTH BRISTOL

## HAZARD PROFILES

### DAM FAILURE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the dam failure hazard for each participating jurisdiction impacted by dam failure (Section 5). The National Dam Safety Review Board (in coordination with FEMA) and the National Inventory of Dams (NID) lists a total of 10 dams in the entire Ontario County planning area, including all jurisdictions. Each of these dams were analyzed individually by location, volume, elevation, and condition (where available) when determining the risk, if any, for each dam. Each dam site was further analyzed for potential risks utilizing FEMA's National Flood Hazard Layer to map locations and fully understand development near the dam and topographical variations that may increase risk. Based on the detailed analysis, the planning team was able to determine that only 1 of the 10 dams identified pose a risk to the Town of South Bristol.

**Table X-5. Town of South Bristol Dam Survey<sup>8</sup>**

LOCATIONS AT RISK	DAM NAME	HEIGHT (Ft.)	MAX STORAGE (Acre Ft.)	CONDITION	HAZARD CLASSIFICATION
Town of South Bristol	Ontario Park Dam	20	19	Not Rated	High

#### **Ontario Park Dam**

The Ontario Park Dam is located in the Ontario County Park at Gannett Hill, which is to the west of Canandaigua Lake. The dam was constructed in 1966 and is owned by Ontario County and operated for the primary purpose of recreation. In the event of a breach during extreme conditions, a dam failure could cause limited infrastructure damage, minor power outages and could disrupt utility systems. The area within a 1-mile radius of the dam is rural with limited development. A breach of the Ontario Parks Dam would travel east towards Canandaigua Lake, 2.7 miles downhill. Approximately 11 residential structures, 11 highway culverts, 7 public highways would be impacted and may result in damages. One of the residential structures would be in a high hazard situation if there was a breach.<sup>9</sup> In the event of a breach, it is estimated that the average breach width would be 41.9 feet with a maximum breach flow of 2,746 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of up to 10-15 feet, with the highest depth in the immediate area of the dam.

Dam failure presents a moderate threat for the Town of South Bristol due to the dam's limited capacity. Loss of life is possible due to the location of one residential structure in the inundation area. Some infrastructure and utilities could be impacted. Economic loss would be minimal.

There are no reported dam failure events or other dam incidents recorded during the reporting period. While the Town of South Bristol is profiling dam failure, there are no known incidents, events, or damages as a result of dam failure in the planning area.

<sup>8</sup> National Inventory of Dams

<sup>9</sup> Ontario Parks Dam Emergency Action Plan, Ontario County Department of Public Works, October 24, 2020.

## ANNEX X: TOWN OF SOUTH BRISTOL

### *PROBABILITY OF FUTURE EVENTS*

Based on historical occurrences of dam failures, the probability for future events is “Unlikely” for the Town of South Bristol, meaning an event is possible in the next ten years.

### *VULNERABILITY AND IMPACT*

The Town of South Bristol planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts. Impacts to critical facilities located in estimated inundation zones are listed in Section 5.

**Table X-6. Critical Facilities Vulnerable to Dam Failure Events**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

Flooding is the most prominent effect of dam failure. If the dam failure is extensive, a large amount of water would enter the downstream waterways forcing them out of their banks. There may be significant environmental effects, resulting in flooding that could disperse debris and hazardous materials downstream that can damage local ecosystems. If the event is severe, debris carried downstream can block traffic flow, cause power outages, and disrupt local utilities.

Annualized loss-estimates for dam failure are not available; neither is there a breakdown of potential dollar losses for critical facilities, infrastructure and lifelines, or hazardous-materials facilities. Historically, the overall severity of impact from a dam failure for the Town of South Bristol would be considered “Limited,” meaning it could result in injuries that can be treated with first-aid, critical facilities being shut down for 24-hours or less and less than 10 percent of the property in the estimated breach inundation area destroyed or with major damage.

# ANNEX X: TOWN OF SOUTH BRISTOL

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of South Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of South Bristol can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of South Bristol, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of South Bristol planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Town of South Bristol:

**Table X-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

The population over 65 in the Town of South Bristol is estimated at 31 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 577 potentially vulnerable residents in the Town of South Bristol based on age. In addition, an estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-8).

**Table X-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	539	38	124

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX X: TOWN OF SOUTH BRISTOL

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of South Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of South Bristol can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of South Bristol, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of South Bristol planning team members identified the following critical facilities (Table X-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Town of South Bristol:

**Table X-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

The population over 65 in the Town of South Bristol is estimated at 31 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 577 potentially vulnerable residents in the Town of South Bristol based on age. In addition, an estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-10).

**Table X-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	539	38	124

Historic losses are often reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX X: TOWN OF SOUTH BRISTOL

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of South Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of South Bristol can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of South Bristol, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of South Bristol planning team members identified the following critical facilities (Table X-11) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Town of South Bristol:

**Table X-11. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

The population over 65 in the Town of South Bristol is estimated at 31 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 577 potentially vulnerable residents in the Town of South Bristol based on age. In addition, an estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-12).

**Table X-12. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	539	38	124

Historic losses are often reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

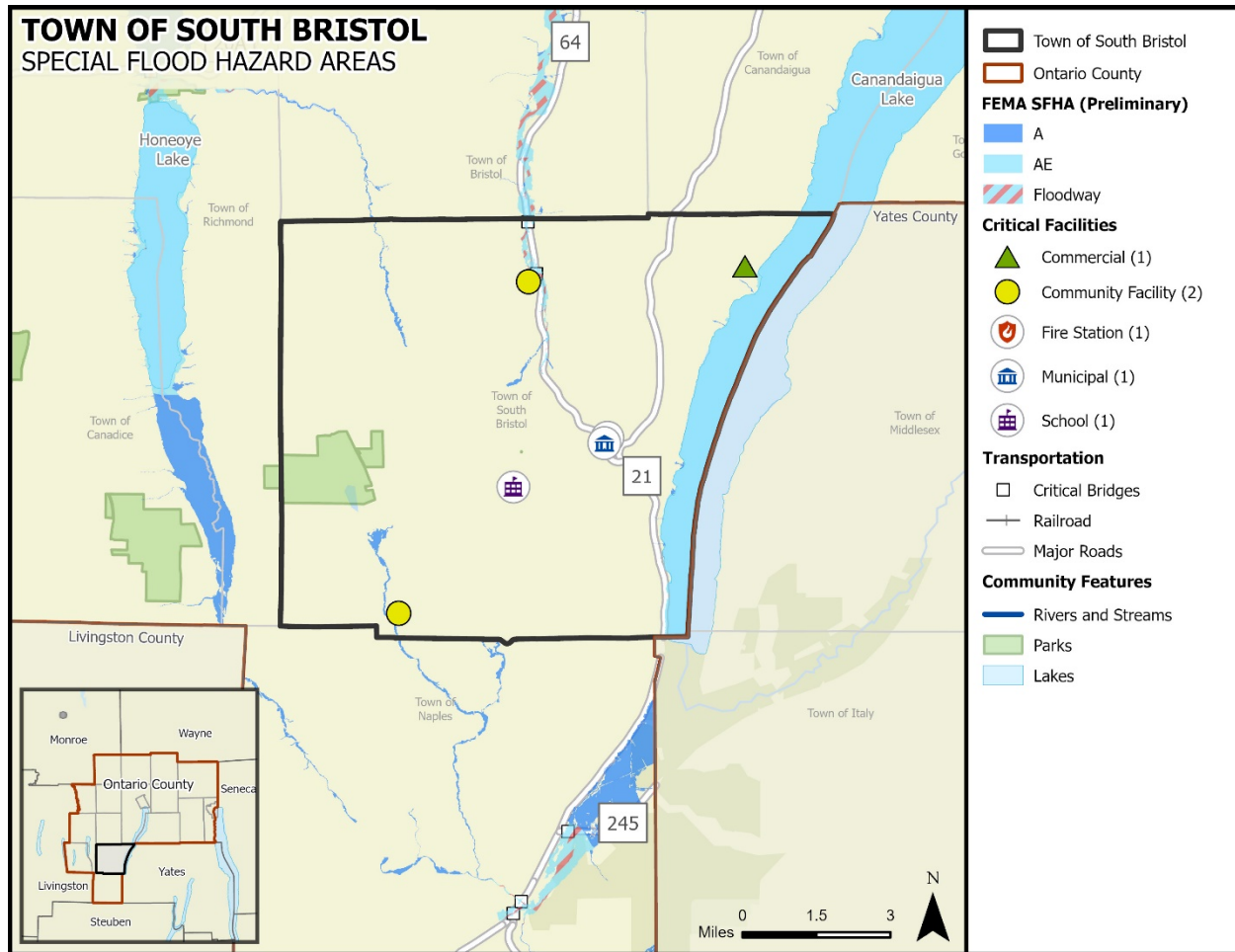
# ANNEX X: TOWN OF SOUTH BRISTOL

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of South Bristol, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of South Bristol, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure X-2.

Figure X-2. Estimated Flood Zones in the Town of South Bristol<sup>10</sup>



### HISTORICAL OCCURRENCES

Table X-13 provides the historical occurrences of flood events for the Town of South Bristol according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, four flood events were known to have impacted the Town of South Bristol, based upon NCEI records. Flood

<sup>10</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)



## ANNEX X: TOWN OF SOUTH BRISTOL

events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table X-13. Historical Flood Events, 1996-2023<sup>11</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of South Bristol	1/8/1998	0	0	\$27,491	\$0
	1/8/1998	0	0	\$1,833	\$0
	1/8/1998	0	0	\$1,833	\$0
	6/29/2005	0	0	\$38,068	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$69,255</b>	<b>\$0</b>

Based on the list of historical flood events for the Town of South Bristol, none of the reported events has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of South Bristol can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of South Bristol planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. No identified critical facilities in the Town of South Bristol were located in the floodplain. Historic loss estimates due to flood are presented in Table X-14 below.

**Table X-14. Potential Annualized Losses, 1996-2023<sup>12</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of South Bristol	4	\$69,225	\$2,517

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-15). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

<sup>11</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>12</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX X: TOWN OF SOUTH BRISTOL

**Table X-15. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	124

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table X-16 depicts the level of impact for the Town of South Bristol.

**Table X-16 Town of South Bristol Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of South Bristol	Limited	It is anticipated that the Town could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of South Bristol currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of South Bristol has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Flooding was identified by the Town of South Bristol as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of South Bristol Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table X-17 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

## ANNEX X: TOWN OF SOUTH BRISTOL

**Table X-17. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of South Bristol	N/A	6/22/2020	Good Standing	0

### *REPETITIVE LOSS*

Table X-18 shows repetitive loss and severe repetitive loss properties for the Town of South Bristol.

**Table X-18. Repetitive Loss and Severe Repetitive Loss Properties**

JURISDICTION	BUILDING TYPE	NUMBER OF LOSSES
Town of South Bristol	Single Family	2

# ANNEX X: TOWN OF SOUTH BRISTOL

## HAIL

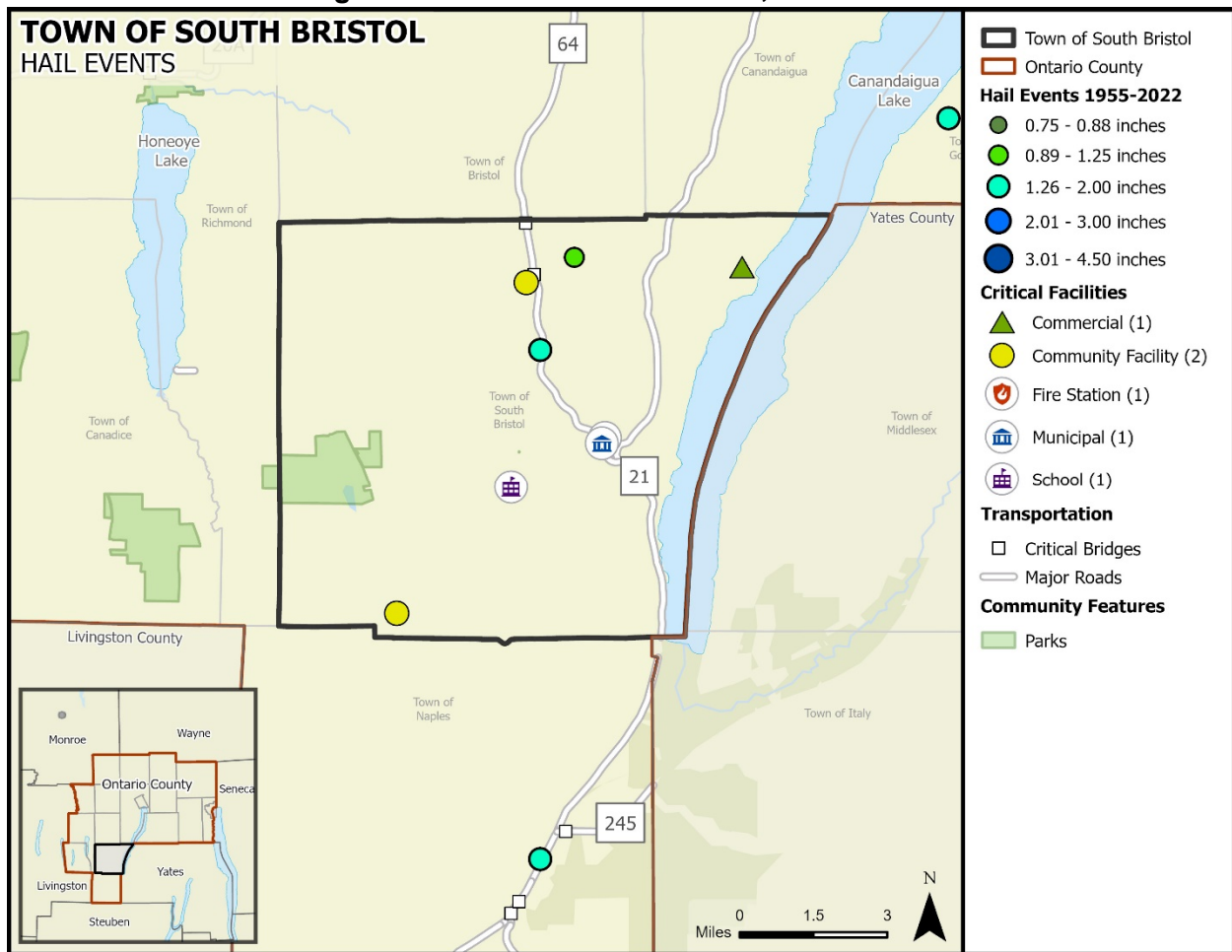
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure X-3 demonstrates that the Town of South Bristol is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table X-19. One reported historical hail event impacted the Town of South Bristol between January 1956 through August 2023; this event was reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of South Bristol with latitude and longitude available were plotted (Figure X-3).

Figure X-3. Historical Hail Events, 1956-2023<sup>13</sup>



<sup>13</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX X: TOWN OF SOUTH BRISTOL

**Table X-19. Historical Hail Events, 1956-2023<sup>14</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of South Bristol	5/29/2012	1	0	0	\$6,444	\$6,444
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$6,444</b>	<b>\$6,444</b>

Based on the list of historical hail events for the Town of South Bristol, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of South Bristol can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of South Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table X-20. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 29 manufactured homes are in the Town of South Bristol (2 percent of total housing stock). In addition, 51 percent (approximately 701 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during hail events.

**Table X-21. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of South Bristol	701	29

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-22).

<sup>14</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX X: TOWN OF SOUTH BRISTOL

**Table X-22. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	124

Overall, the total loss estimate of property and crops in the Town of South Bristol is \$12,888 with an average annualized loss of \$191. Based on historic loss and damages, the impact of hail damages on the Town of South Bristol can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table X-23. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of South Bristol	\$12,888	\$191

# ANNEX X: TOWN OF SOUTH BRISTOL

## ICE STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of South Bristol, are often provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of South Bristol can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of South Bristol, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of South Bristol planning team members identified the following critical facilities (Table X-24) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Town of South Bristol:

**Table X-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

The population over 65 in the Town of South Bristol is estimated at 31 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 577 potentially vulnerable residents in the Town of South Bristol based on age. In addition, an estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-25).

**Table X-25. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	539	38	124

Historic losses are often reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.



## ANNEX X: TOWN OF SOUTH BRISTOL

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of South Bristol is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of South Bristol over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of South Bristol.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX X: TOWN OF SOUTH BRISTOL

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Town of South Bristol from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of South Bristol is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of South Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table X-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-27).

**Table X-27. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	124

With no historical lightning events or losses, the impacts of lightning events can be considered “limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of South Bristol due to lightning are considered negligible.

ANNEX X: TOWN OF SOUTH BRISTOL

Table X-28. Potential Annualized Losses

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of South Bristol	\$0	\$0

# ANNEX X: TOWN OF SOUTH BRISTOL

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of South Bristol, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of South Bristol can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of South Bristol, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of South Bristol planning team members identified the following critical facilities (Table X-29) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Town of South Bristol:

**Table X-29. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

The population over 65 in the Town of South Bristol is estimated at 31 percent of the Town’s total population and children under the age of 5 are estimated at 2 percent, or an estimated total of 577 potentially vulnerable residents in the Town of South Bristol based on age. In addition, an estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-30).

**Table X-30. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	539	38	124

Historic losses are often reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX X: TOWN OF SOUTH BRISTOL

## TORNADO

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Table X-31 provides the historical occurrences of tornado events for the Town of South Bristol according to the National Centers for Environmental Information (NCEI) Storm Events database. From August 1994 through August 2023, one tornado event is known to have impacted the Town of South Bristol, based upon NCEI records.

**Table X-31. Historical Tornado Events, 1994-2023<sup>15</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of South Bristol	6/22/1996	F1	0	0	\$94,503	\$28,351
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$94,503</b>	<b>\$28,351</b>

Based on the list of historical tornado events for the Town of South Bristol, there have been no recorded events since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

With one historical tornado event over a 29-year reporting period, the Town of South Bristol can anticipate a tornado touchdown approximately once every five years. This frequency supports an “Occasional” probability of future events.

### VULNERABILITY AND IMPACT

The Town of South Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table X-32. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 29 manufactured homes are in the Town of South Bristol (2 percent of total housing stock). In addition, 51 percent (approximately 701 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

<sup>15</sup> Historical events are reported from August 1994 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX X: TOWN OF SOUTH BRISTOL

**Table X-33. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of South Bristol	701	29

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of South Bristol’s population live below the poverty level (Table X-34).

**Table X-34. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	124

The total loss estimate due to tornado events is \$122,854 (in 2023 dollars), having an approximate annual loss estimate of \$4,236. Based on historic damages and best available data the impact of a tornado event on the Town of South Bristol would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table X-35. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of South Bristol	\$122,854	\$4,236

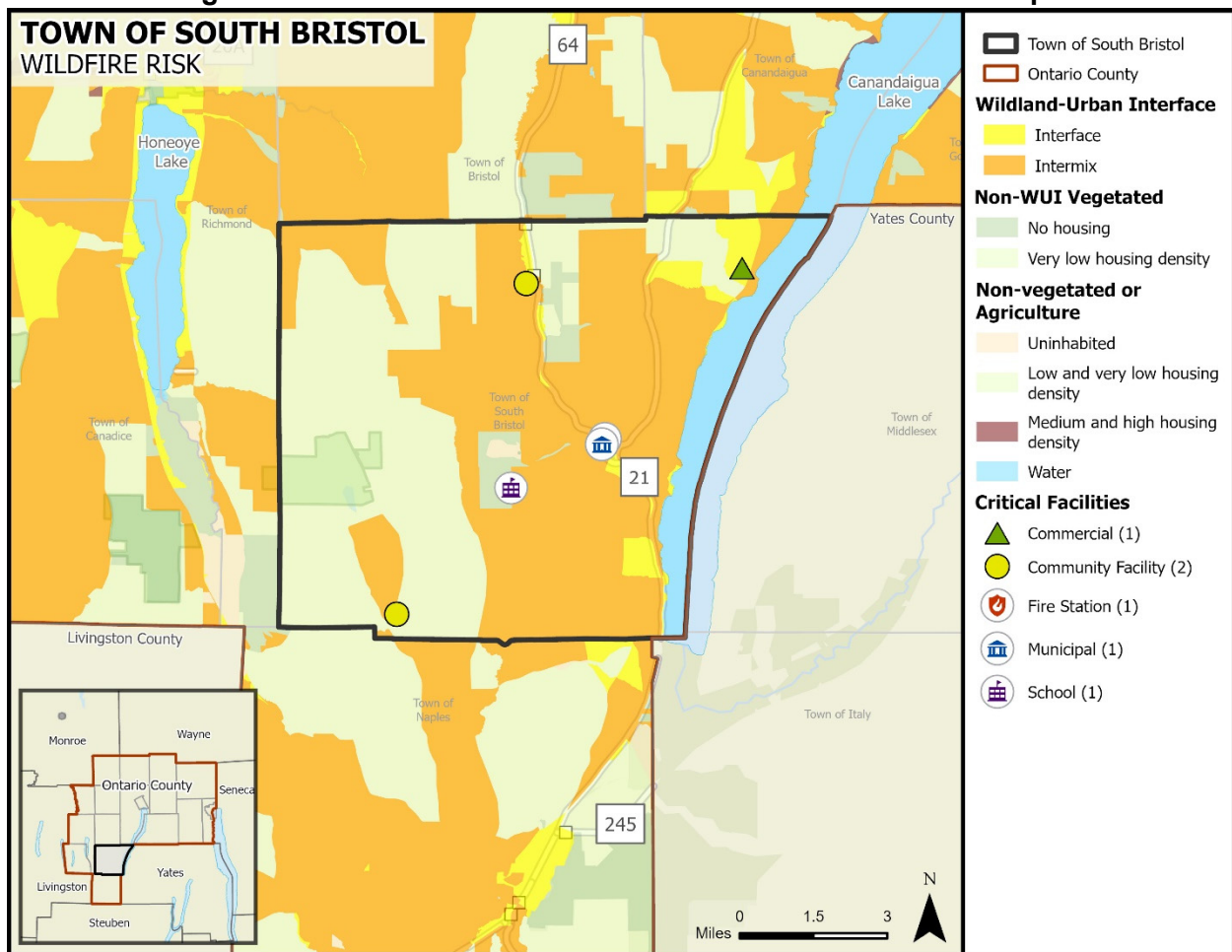
# ANNEX X: TOWN OF SOUTH BRISTOL

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure X-4). The Town of South Bristol planning area is considered at low risk for wildfires with limited WUI areas.

**Figure X-4. Town of South Bristol Wildland Urban Interface Map<sup>16</sup>**



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the

<sup>16</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)



## ANNEX X: TOWN OF SOUTH BRISTOL

Town of South Bristol, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

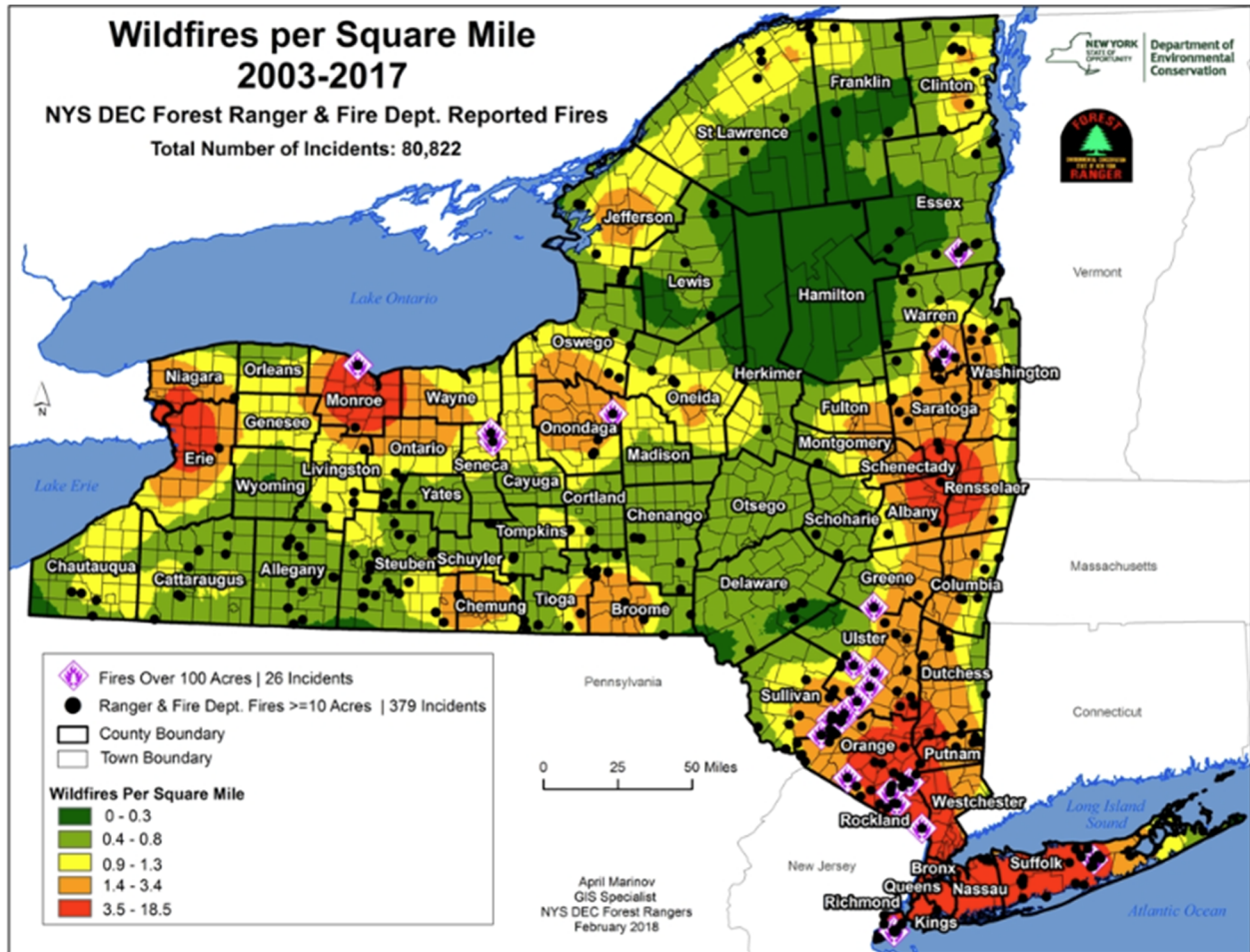
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure X-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Town of South Bristol planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX X: TOWN OF SOUTH BRISTOL

Figure X-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of South Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.

## ANNEX X: TOWN OF SOUTH BRISTOL

**Table X-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

For the Town of South Bristol, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX X: TOWN OF SOUTH BRISTOL

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, three wind events are known to have occurred in the Town of South Bristol. Table X-37 presents information on known historical wind events impacts The Town according to the NCEI Database.

**Table X-37. Historical Wind Events, 1956-2023<sup>17</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of South Bristol	5/29/2012	50	0	0	\$12,887	\$12,887
	8/16/2022	51	0	0	\$514	\$0
	8/29/2022	51	0	0	\$2,188	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$15,589</b>	<b>\$12,887</b>

Based on the list of historical thunderstorm wind events for the Town of South Bristol, two of the events have occurred since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of South Bristol can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

#### VULNERABILITY AND IMPACT

The Town of South Bristol planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table X-38. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of South Bristol	1 Commercial Building, 1 Community Facility, 4 Recreation Facilities/Parks, 2 Fire Stations, 1 Municipal Building, 1 School

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 29 manufactured homes are in the Town of South Bristol (2 percent of total housing stock). In

<sup>17</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX X: TOWN OF SOUTH BRISTOL

addition, 51 percent (approximately 701 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during wind events.

**Table X-39. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of South Bristol	701	29

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 7 percent of the Town of South Bristol's population live below the poverty level (Table X-40).

**Table X-40. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of South Bristol	124

Impact of wind events experienced in the Town of South Bristol would be considered "Limited," with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$28,476 in damages (in 2023 dollars) in the Town of South Bristol due to wind events. The estimated average annual loss from a wind event is \$423.

**Table X-41. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of South Bristol	\$28,476	\$423

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on manmade hazards evaluated for this plan.

# ANNEX X: TOWN OF SOUTH BRISTOL

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TSB-1: Aquatic Invasive Species Mitigation</b>	
<b>Name of Jurisdiction:</b>	Town of South Bristol
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Aquatic invasive species issue on Canandaigua Lake - funding is limited - need: information/education programs; watercraft stewards/inspection and organism removal; boat washing stations.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Aquatic invasive species on Canandaigua Lake.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TSB-1: Aquatic Invasive Species Mitigation
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Boat washing, education, inspection of organisms in lake and prevention
<b>Summary of Evaluation Benefits (losses avoided):</b>	Public health concerns. Minimize potential damage to resources on which the recreation and tourism industry depend.
<b>Estimated Cost:</b>	\$10,000 education materials
<b>Other Factors Considered:</b>	\$100,000– hire boat inspectors (if need be) \$40,000 – set up boat washing stations (if need be)
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Parks and Recreation Department,
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2020
<b>Potential Fund Sources:</b>	NYS DEC
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Coordination with the Canandaigua Lake Watershed Council with support from Finger Lakes Partnership for Regional Invasive Species Management (PRISM)
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Delete Action. Town does not face this issue.

## ANNEX X: TOWN OF SOUTH BRISTOL

<b>Previous Action Worksheet</b>	
<b>TSB-2: Flood Mitigation – regulations and stormwater management</b>	
<b>Name of Jurisdiction:</b>	Town of South Bristol
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Drainage/flood issues - flooding has caused road closures, damage to homes and structures, etc.; lost a road last year – issues with drainage on Bulic Rd culverts; NY rte. 21 has been damaged; some future development is anticipated adjacent to the flood zone on Canandaigua Lake-ensure development adheres to flood regs.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Flood zone requirements, road damage including local, county and state also property damage.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TSB-2: Flood Mitigation – regulations and stormwater management
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Review flood impacts and assess need for culvert replacement and ditch and drainage improvements
<b>Summary of Evaluation Benefits (losses avoided):</b>	Reduction of road damage and property damage
<b>Estimated Cost:</b>	Phase 1 study of culvert resizing needs estimated \$50,000 Impact on Emergency Response Time
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Highway Department
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	Town Budget, NYS DEC, Wildlife and Fisheries
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	N/A
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update. Culvert replacements are on-going and being addressed by the Highway Department.



## ANNEX X: TOWN OF SOUTH BRISTOL

<b>Previous Action Worksheet</b>	
<b>TSB-3: Stormwater and erosion management</b>	
<b>Name of Jurisdiction:</b>	Town of South Bristol
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Stormwater management and erosion concerns - need adequate equipment and to continue road ditch stabilization, culvert repair/replacement, tree trimming.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Stormwater and erosion management
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	TSB-3: Stormwater and erosion management
<b>Action or Project Description:</b>	Purchase new equipment, ditch maintenance with culvert replacement.
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	Highway damage and road closures \$100,000 Timely emergency response
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Highway Department
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	Highway Department, Bonds and Town Board
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Floodplain management plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Completed. Slope law is in place with Town.

## ANNEX X: TOWN OF SOUTH BRISTOL

<b>Previous Action Worksheet</b>	
<b>TSB-4: Town Hall and Highway Dept. Generators</b>	
<b>Name of Jurisdiction:</b>	Town of South Bristol
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Some critical facilities are vulnerable to utility failure (and associated hazards that can cause utility failure) - Town hall and town garage need generators.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Vulnerability of highway garage and town hall to utility failure.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TSB-4: Town Hall and Highway Dept. Generators
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Install two generators: one at Town Hall and one at Highway Dept.
<b>Summary of Evaluation Benefits (losses avoided):</b>	No down time for either Highway or Town Hall daily business. Backup generators will limit damage by ensuring that sump pumps and heaters work during 500yr flood events.
<b>Estimated Cost:</b>	\$40,000-\$50,000 per location
<b>Other Factors Considered:</b>	Towns infrastructure can continue to run
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2018
<b>Potential Fund Sources:</b>	Town Budget and Government Grants
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Annual Budgeting Process
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

# ANNEX X: TOWN OF SOUTH BRISTOL

## NEW MITIGATION ACTIONS

TOWN OF SOUTH BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	1.4	Dam Failure, Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Generator for Critical Facilities: During power outages, the Town Hall and Highway Department facility would be without lights, communications, and maintenance equipment/machinery. The operations are basically brought to a halt. The Town Hall also acts as a shelter for vulnerable populations in need. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Acquire and install a permanent generator at both critical facilities: Town Hall and Highway Department	Yes	Further review required	24-48 months	Town Board and Highway Department	\$40,000-\$50,000 per location	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Fuel)
2	4.2	Flood	Flood Mitigation of Gullies: South Bristol is quite hilly, and we have many, many gullies that drain directly into Canandaigua Lake. Most of these gullies are on private property. Over time they fill with obstacles that cause flooding and erosion. This project protects the community and reduces risk of flooding.	Conduct an assessment to identify flood mitigation projects that could be implemented to reduce erosion and flooding. Work with private property owners on a solution.	No	Further review required	24-48 months	Town Board	Cost determined based on proposed mitigation solutions	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security

# ANNEX X: TOWN OF SOUTH BRISTOL

TOWN OF SOUTH BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
3	3.3	Flood	Flood Regulations: There is some future development is anticipated adjacent to the flood zone on Canandaigua Lake in which adherence flood regulations is needed. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Enforce flood zone regulations on future development.	No	N/A	On-going	Town Board and Code	Staff Time	Reduce flood damages and risk of injuries or fatalities through regulated development; Reduce the amount of stormwater runoff in densely developed areas during flood events; Reduce the risk of downstream flooding.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Communication, Safety/Security
4	5.4	Flood	Culvert, Ditch and Drainage Improvements: Flooding has caused road closures, damage to homes and structures, etc.; lost a road last year. Issues with drainage on Gulick Rd., Bulic Rd culverts, damage to NY rte. 21 is still prevalent. This project protects the community and reduces risk of flooding.	Review flood impacts and assess need for culvert replacement and ditch and drainage improvements.	No	Further review required	On-going	Town Board and Highway Department	\$500,000	Improve risk assessment; Reduce risk of damages or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Safety/Security
5	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX X: TOWN OF SOUTH BRISTOL

TOWN OF SOUTH BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
6	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX X: TOWN OF SOUTH BRISTOL

TOWN OF SOUTH BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
8	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX X: TOWN OF SOUTH BRISTOL

TOWN OF SOUTH BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Town Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
11	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication



# ANNEX X: TOWN OF SOUTH BRISTOL

TOWN OF SOUTH BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
12	3.3	Dam Failure, Drought, Flood, Landslide, Snow Storm Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
13	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX X: TOWN OF SOUTH BRISTOL

TOWN OF SOUTH BRISTOL PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				they have concerns on a potential threat.									
15	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
17	3.1	Dam Failure	Dam Inundation Risk	Identify the area potentially at- risk in the event of dam failure and educate residents at risk on ways they can mitigate and reduce the effects of downstream impacts in the event of inundation.	No	N/A	12 months	Town Board	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX X: TOWN OF SOUTH BRISTOL

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of South Bristol
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	X
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX X: TOWN OF SOUTH BRISTOL

COMMUNITY CAPABILITY CHECKLIST	Town of South Bristol
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	
Local Environmental Review	
Local Wetland Regulations	
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	
Subdivision Regulations	
Timber Harvesting Regulations	X
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	

## ANNEX X: TOWN OF SOUTH BRISTOL

COMMUNITY CAPABILITY CHECKLIST	Town of South Bristol
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	X
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	X
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	



ANNEX Y  
**TOWN OF VICTOR**

# ANNEX Y: TOWN OF VICTOR

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## ANNEX Y: TOWN OF VICTOR

### JURISDICTION PROFILE

#### OVERVIEW

The Town of Victor is an incorporated town in Ontario County, New York and has a population of over 15,000. The town contains a village, also called Victor. It is in the northwest corner of the county and is southeast of Rochester. According to the United States Census Bureau, the town has a total area of 36.0 square miles of which 35.9 square miles is land and 0.01 square mile is water. The western and northern town lines are on the border of Monroe County. The New York State Thruway (Interstate 90) passes through the northern part of town. Figure Y-1 shows the general location of the Town of Victor.

### TOWN OF VICTOR CONTACT INFORMATION

Name: Jack Marren

Title: Town Supervisor

Phone: (585) 742-5020

Address: 85 E Main Street, Victor, NY 14564

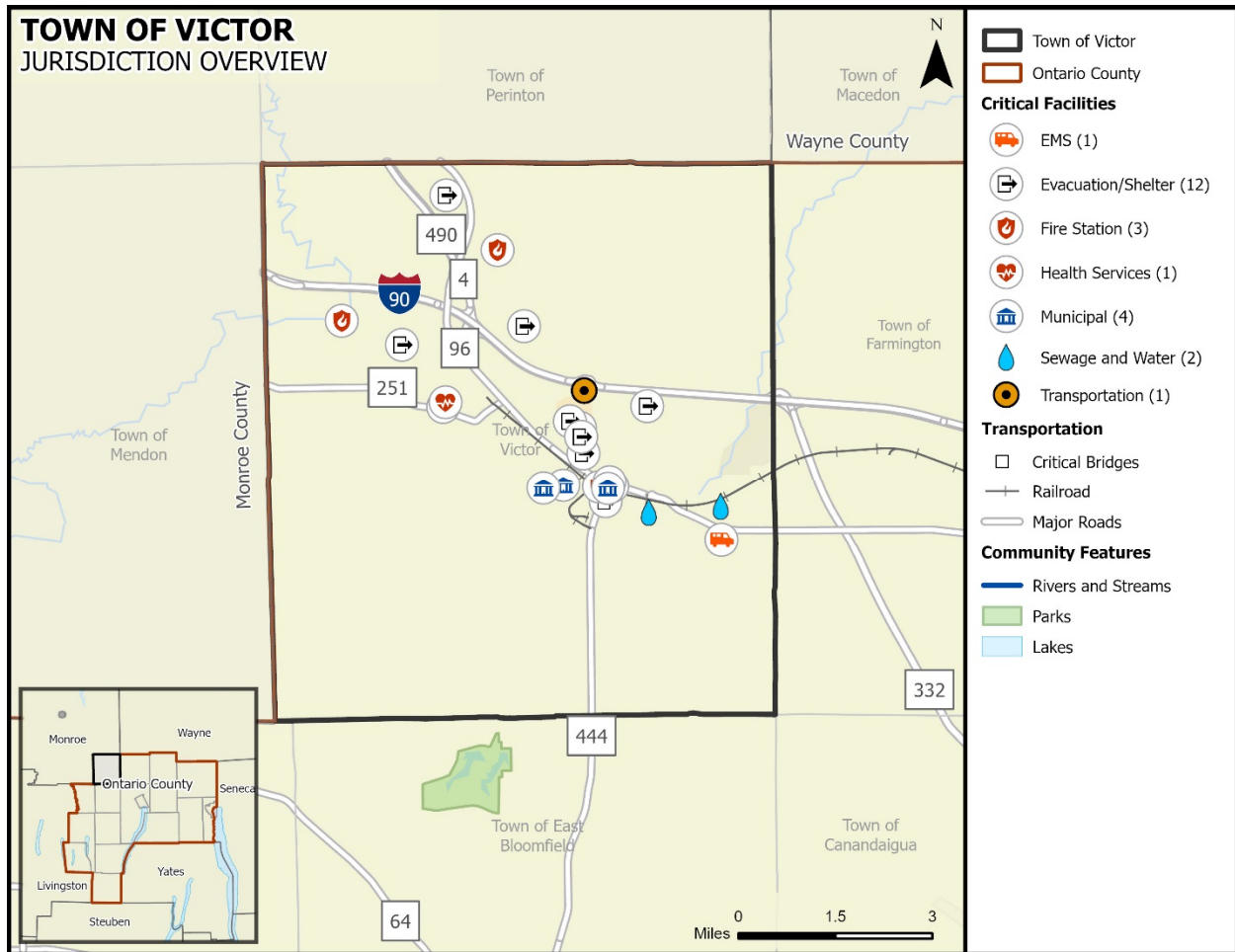
Email: [supervisor@town-victor-ny.us](mailto:supervisor@town-victor-ny.us)

### NOTE TO THE REVIEWER

It is noted that the Town of Victor and the Village of Victor are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

# ANNEX Y: TOWN OF VICTOR

**Figure Y-1. Town of Victor Planning Area<sup>1</sup>**



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of Victor has an official population of 15,860 residents, an 11.1 percent increase since the 2010 census. Table Y-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of Victor using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

## ANNEX Y: TOWN OF VICTOR

**Table Y-1. Population Distribution for the Town of Victor**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of Victor	14,275	15,779	10.5%	783	3,198	410

### POPULATION GROWTH

The official 2020 Town of Victor population is 15,860. Overall, the Town of Victor experienced an increase in population between 1990 and 2020 of 120.6 percent, or an increase of 8,668 residents. Between 2010 and 2020, the Town of Victor experienced a population growth. Table Y-2 provides historic change rates in the Town of Victor.

**Table Y-2. Population Growth for the Town of Victor, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of Victor	7,191	9,823	14,275	15,860	8,669	120.6%	1,585	11.1%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of Victor might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table Y-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

# ANNEX Y: TOWN OF VICTOR

**Table Y-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

## PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table Y-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table Y-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of Victor	Town Supervisor

## PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of Victor’s website. A total of 11 surveys were completed for the Town of Victor. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County’s website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

## ANNEX Y: TOWN OF VICTOR

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of Victor's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

# ANNEX Y: TOWN OF VICTOR

## HAZARD PROFILES

### DAM FAILURE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the dam failure hazard for each participating jurisdiction impacted by dam failure (Section 5). The National Dam Safety Review Board (in coordination with FEMA) and the National Inventory of Dams (NID) lists a total of 10 dams in the entire Ontario County planning area, including all jurisdictions. Each of these dams were analyzed individually by location, volume, elevation, and condition (where available) when determining the risk, if any, for each dam. Each dam site was further analyzed for potential risks utilizing FEMA’s National Flood Hazard Layer to map locations and fully understand development near the dam and topographical variations that may increase risk. Based on the detailed analysis, the planning team was able to determine that only 2 of the 10 dams identified pose a risk to the Town of Victor.

**Table Y-5. Town of Victor Dam Survey<sup>8</sup>**

LOCATIONS AT RISK	DAM NAME	HEIGHT (Ft.)	MAX STORAGE (Acre Ft.)	CONDITION	HAZARD CLASSIFICATION
Town of Victor	Fairport Reservoir Dam #1 (West Lake Dam)	45	322	Not Rated	Intermediate
	Fairport Reservoir Dam #2 (East Lake Dam)	20	228	Not Rated	Intermediate

#### **Fairport Reservoir Dam #1 (West Lake Dam):**

Fairport Reservoir Dam #1 also known as West Lake Dam is an earthen dam located in Boughton Park. The Park is located in the Town of East Bloomfield and jointly owned by the Towns of Victor, East Bloomfield, and West Bloomfield. It was constructed in 1932 to create a water supply reservoir for the Village of Fairport in Monroe County. The maximum storage capacity is 228 acre-feet. In the event of a breach, a dam failure could cause limited infrastructure damage, minor power outages and could disrupt utility systems. The area within a 1-mile radius of the dam is rural with some residential development. A breach may impact local roads and approximately 10-12 residential structures. In the event of a breach, it is estimated that the average breach width would be 104.2 feet with a maximum breach flow of 66,045 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of 5-10 feet, with the highest depth in the immediate area of the dam.

#### **Fairport Reservoir Dam #2 (East Lake Dam):**

Fairport Reservoir Dam #1 also known as East Lake Dam is an earthen dam located in Boughton Park. The Park is located in the Town of East Bloomfield and jointly owned by the Towns of Victor, East Bloomfield, and West Bloomfield. It was constructed in 1923 to create a water supply reservoir for the Village of Fairport in Monroe County. Maximum storage capacity is 322 acre-feet. In the event of a breach, a dam failure could cause limited infrastructure damage, minor power

<sup>8</sup> National Inventory of Dams

## ANNEX Y: TOWN OF VICTOR

outages and could disrupt utility systems. The area within a 1-mile radius of the dam is rural with some residential development, approximately 10-15 residential structures. In the event of a breach, it is estimated that the average breach width would be 78.1 feet with a maximum breach flow of 12,180 cubic feet per second according to the National Weather Service (NWS) Dam Break Equation. A dam breach could result in an estimated depth of up to 15-25 feet, with the highest depth in the immediate area of the dam.

Dam failure presents a low threat for the Town of Victor due to the dam's limited capacity. Loss of life is not anticipated. While some residential structures could be impacted, the greatest threat in the event of a breach would be localized flooding. Some infrastructure and utilities could be minimally impacted. Economic loss would be minimal.

There are no reported dam failure events or other dam incidents recorded during the reporting period. While the Town of Victor is profiling dam failure, there are no known incidents, events, or damages as a result of dam failure in the planning area.

### *PROBABILITY OF FUTURE EVENTS*

Based on historical occurrences of dam failures, the probability for future events is "Unlikely" for the Town of Victor, meaning an event is possible in the next ten years.

### *VULNERABILITY AND IMPACT*

The Town of Victor planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts. None of the identified critical facilities in the Town of East Bloomfield were located within the estimated dam inundation zone. Impacts to critical facilities located in estimated inundation zones are listed in Section 5.

Flooding is the most prominent effect of dam failure. If the dam failure is extensive, a large amount of water would enter the downstream waterways forcing them out of their banks. There may be significant environmental effects, resulting in flooding that could disperse debris and hazardous materials downstream that can damage local ecosystems. If the event is severe, debris carried downstream can block traffic flow, cause power outages, and disrupt local utilities.

Annualized loss-estimates for dam failure are not available; neither is there a breakdown of potential dollar losses for critical facilities, infrastructure and lifelines, or hazardous-materials facilities. Historically, the overall severity of impact from a dam failure for the Town of Victor would be considered "limited," meaning it could result in injuries that can be treated with first-aid, critical facilities being shut down for 24-hours or less and less than 10 percent of the property in the estimated breach inundation area destroyed or with major damage.



## ANNEX Y: TOWN OF VICTOR

### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Victor can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Victor, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of Victor planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Town of Victor.

**Table Y-6. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

The population over 65 in the Town of Victor is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 3,981 potentially vulnerable residents in the Town of Victor based on age. In addition, an estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-7).

**Table Y-7. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Victor	3,198	783	410

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX Y: TOWN OF VICTOR

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of Victor, are provided on a County-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Victor can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Victor, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Victor planning team members identified the following critical facilities (Table Y-8) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Town of Victor:

**Table Y-8. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

The population over 65 in the Town of Victor is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 3,981 potentially vulnerable residents in the Town of Victor based on age. In addition, an estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-9).

**Table Y-9. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Victor	3,198	783	410

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX Y: TOWN OF VICTOR

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Victor can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Victor, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Victor planning team members identified the following critical facilities (Table Y-10) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Town of Victor:

**Table Y-10. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

The population over 65 in the Town of Victor is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 3,981 potentially vulnerable residents in the Town of Victor based on age. In addition, an estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-11).

**Table Y-11. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Victor	3,198	783	410

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

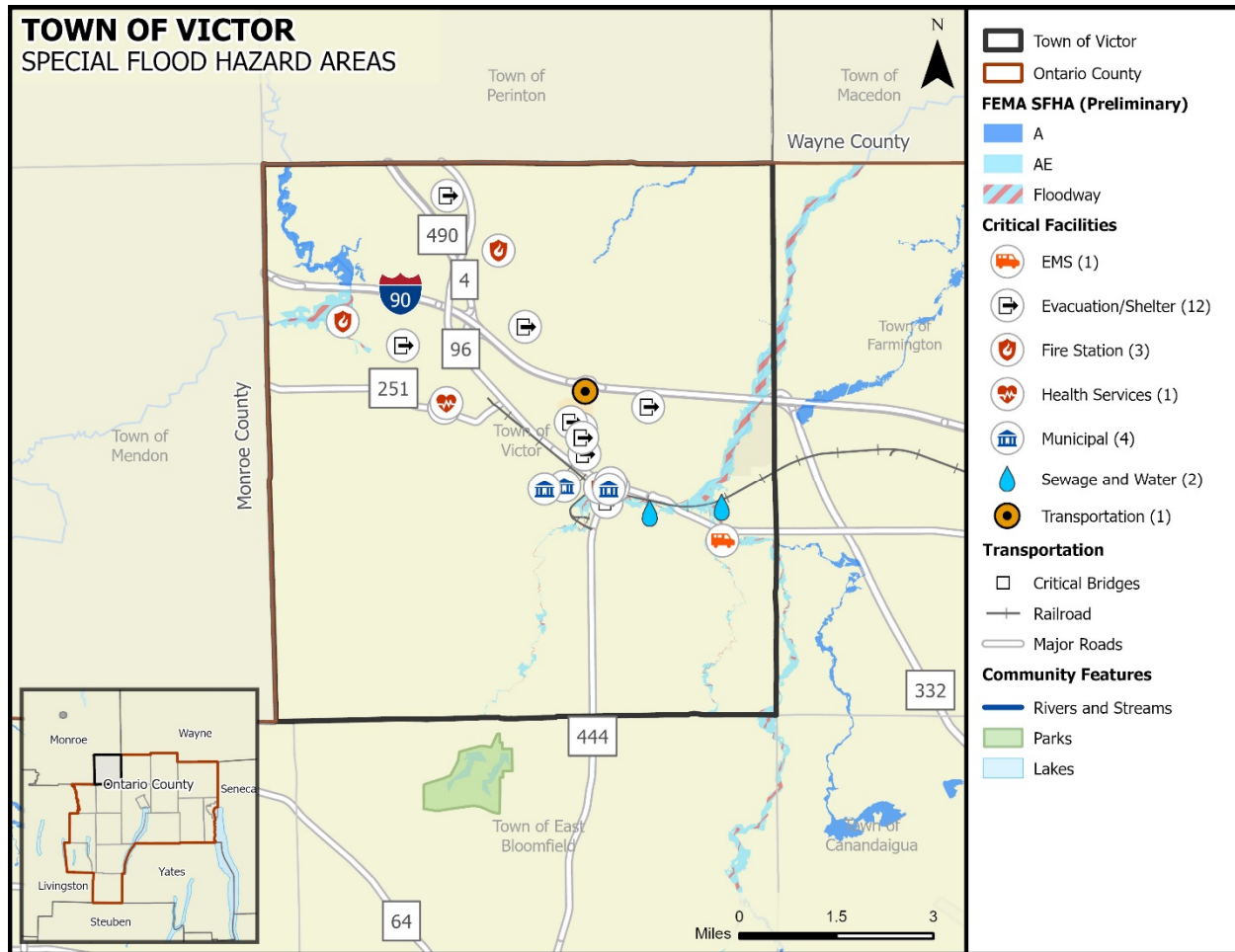
# ANNEX Y: TOWN OF VICTOR

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of Victor, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of Victor, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure Y-2.

Figure Y-2. Estimated Flood Zones in the Town of Victor<sup>9</sup>



### HISTORICAL OCCURRENCES

Table Y-12 provides the historical occurrences of flood events for the Town of Victor according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, one flood event was known to have impacted the Town of Victor, based upon NCEI records. Flood events are often

<sup>9</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX Y: TOWN OF VICTOR

reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table Y-12. Historical Flood Events, 1996-2023<sup>10</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	6/13/2013	0	0	\$12,684	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$12,684</b>	<b>\$0</b>

Based on the list of historical flood events for the Town of Victor, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Victor can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Victor planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. No critical facilities in the Town of Victor are located in the floodplain.

Historic loss estimates due to flood are presented in Table Y-13 below.

**Table Y-13. Potential Annualized Losses, 1996-2023<sup>11</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town and Village of Victor	1	\$12,684	\$461

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-14). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table Y-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Victor	410

<sup>10</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>11</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX Y: TOWN OF VICTOR

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table Y-15 depicts the level of impact for the Town of Victor.

**Table Y-15 Town of Victor Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of Victor	Limited	It is anticipated that the Town could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of Victor currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of Victor has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Town of Victor as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of Victor Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table Y-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.

**Table Y-16. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of Victor	N/A	5/4/2017	Good Standing	10

### *REPETITIVE LOSS*

The Town of Victor currently has no repetitive loss or severe repetitive loss properties.



# ANNEX Y: TOWN OF VICTOR

## HAIL

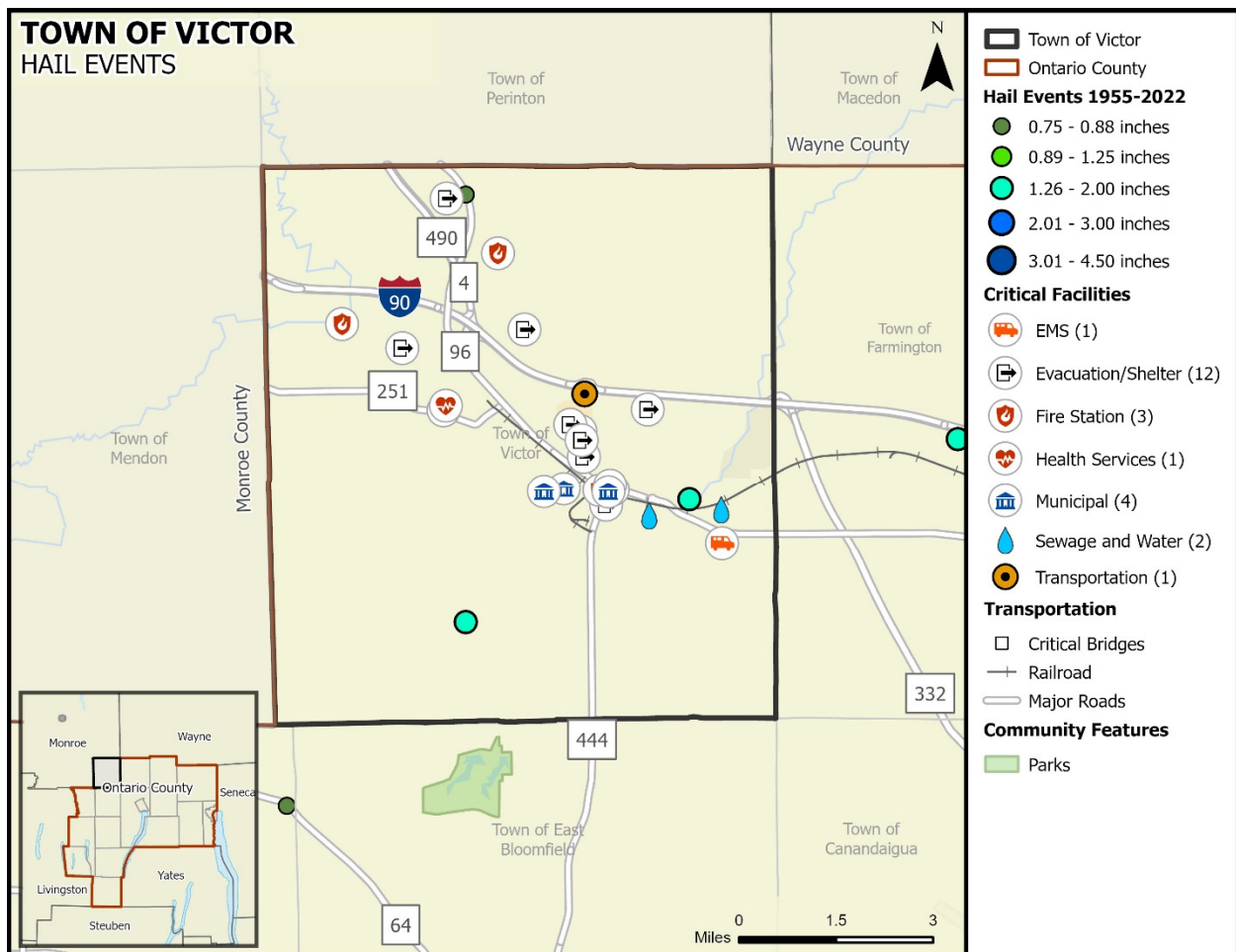
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure Y-3 demonstrates that the Town of Victor is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table Y-17. A total of four reported historical hail events impacted the Town of Victor between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of Victor with latitude and longitude available were plotted (Figure Y-3).

**Figure Y-3. Historical Hail Events, 1956-2023<sup>12</sup>**



<sup>12</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)



## ANNEX Y: TOWN OF VICTOR

**Table Y-17. Historical Hail Events, 1956-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	8/10/2008	1.75	0	0	\$27,037	\$0
	6/3/2014	1	0	0	\$12,426	\$0
	5/14/2017	0.75	0	0	\$0	\$0
	6/16/2022	1.75	0	0	\$0	\$0
<b>TOTALS</b>	-	<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$39,463</b>	<b>\$0</b>

Based on the list of historical hail events for the Town of Victor, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Victor can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table Y-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 430 manufactured homes are in the Town of Victor (6 percent of total housing stock). In addition, 28 percent (approximately 1,937 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during hail events.

**Table Y-19. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Victor	1,937	430

<sup>13</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX Y: TOWN OF VICTOR

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 3 percent of the Town of Victor's population live below the poverty level (Table Y-20).

**Table Y-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Victor	410

Overall, the total loss estimate of property and crops in the Town of Victor is \$39,463 with an average annualized loss of \$585. Based on historic loss and damages, the impact of hail damages on the Town of Victor can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table Y-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town and Village of Victor	\$39,463	\$585

## ANNEX Y: TOWN OF VICTOR

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Victor can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Victor, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Victor planning team members identified the following critical facilities (Table Y-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Town of Victor:

**Table Y-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

The population over 65 in the Town of Victor is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 3,981 potentially vulnerable residents in the Town of Victor based on age. In addition, an estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-23).

**Table Y-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Victor	3,198	783	410

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX Y: TOWN OF VICTOR

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of Victor is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of Victor over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of Victor.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

# ANNEX Y: TOWN OF VICTOR

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Town of Victor from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of Victor is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table Y-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-25).

**Table Y-25. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Victor	410

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of Victor due to lightning are considered negligible.

ANNEX Y: TOWN OF VICTOR

**Table Y-26. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of Victor	\$0	\$0

## ANNEX Y: TOWN OF VICTOR

### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of Victor can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of Victor, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of Victor planning team members identified the following critical facilities (Table Y-27) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Town of Victor:

**Table Y-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

The population over 65 in the Town of Victor is estimated at 20 percent of the Town’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 3,981 potentially vulnerable residents in the Town of Victor based on age. In addition, an estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-28).

**Table Y-28. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of Victor	3,198	783	410

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.



# ANNEX Y: TOWN OF VICTOR

## TORNADO

### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### *HISTORICAL OCCURRENCES*

Table Y-29 provides the historical occurrences of tornado events for the Town of Victor according to the National Centers for Environmental Information (NCEI) Storm Events database. From August 1994 through August 2023, one tornado event is known to have impacted the Town of Victor, based upon NCEI records.

**Table Y-29. Historical Tornado Events, 1994-2023<sup>14</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of Victor	7/15/1996	F1	0	0	\$56,593	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$56,593</b>	<b>\$0</b>

Based on the list of historical tornado events for the Town of Victor, there have been no recorded events since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENT*

With one historical tornado event over a 29-year reporting period, the Town of Victor can anticipate a tornado touchdown approximately once every five years. This frequency supports an “Occasional” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table Y-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 430 manufactured homes are in the Town of Victor (6 percent of total housing stock). In addition, 28 percent (approximately 1,937 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during tornado events.

<sup>14</sup> Historical events are reported from August 1994 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX Y: TOWN OF VICTOR

**Table Y-31. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Victor	1,937	430

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-32).

**Table Y-32. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Victor	410

The total loss estimate due to tornado events is \$56,593 (in 2023 dollars), having an approximate average annual loss estimate of \$1,951. Based on historic damages and best available data the impact of a wind event on the Town of Victor would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table Y-33. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of Victor	\$56,593	\$1,951

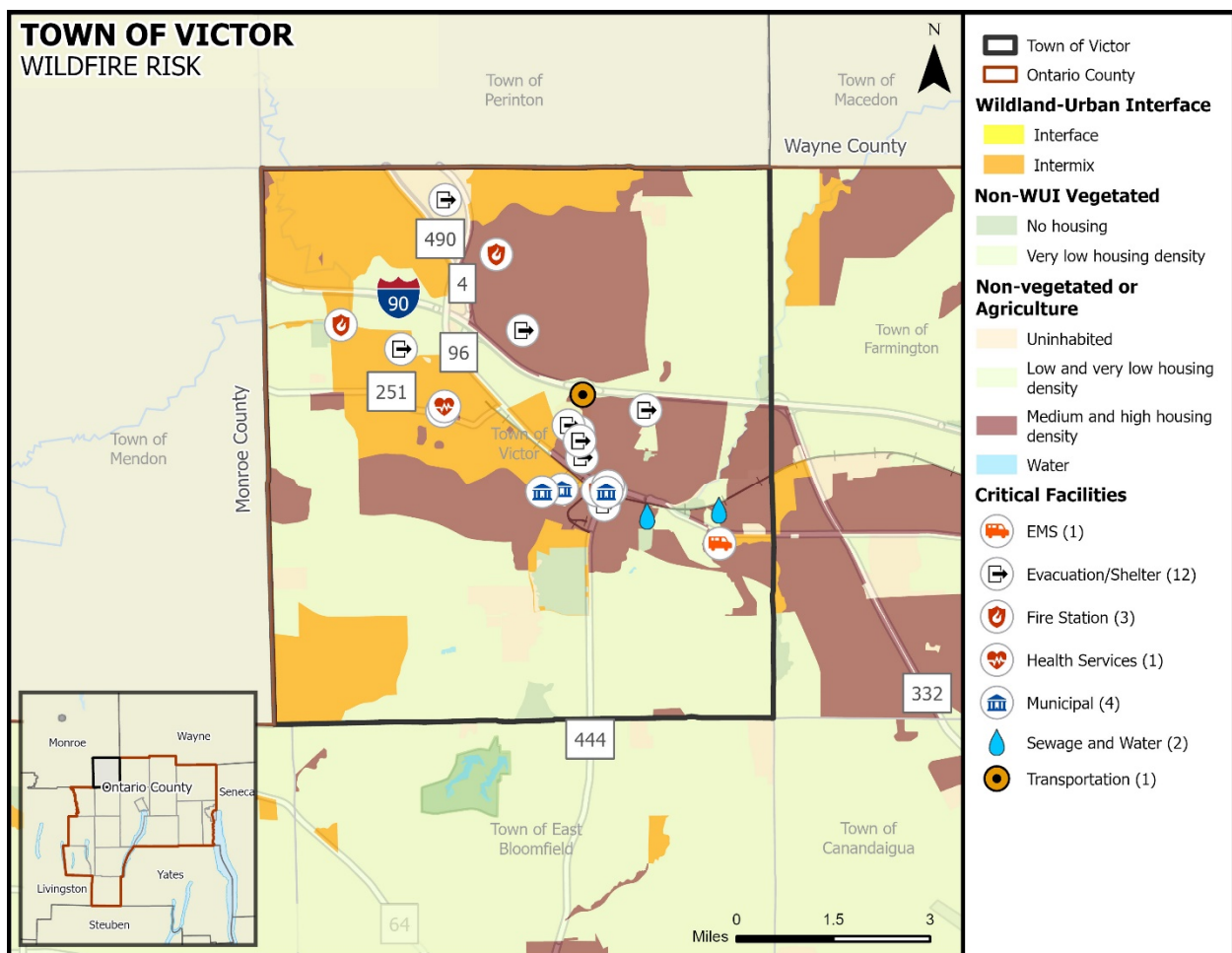
# ANNEX Y: TOWN OF VICTOR

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure Y-4). The Town of Victor planning area is considered at low risk for wildfires with limited WUI areas.

**Figure Y-4. Town of Victor Wildland Urban Interface Map<sup>15</sup>**



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>15</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX Y: TOWN OF VICTOR

of Forest Protection issues color coded danger alerts. The entire planning area, including the Town of Victor, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

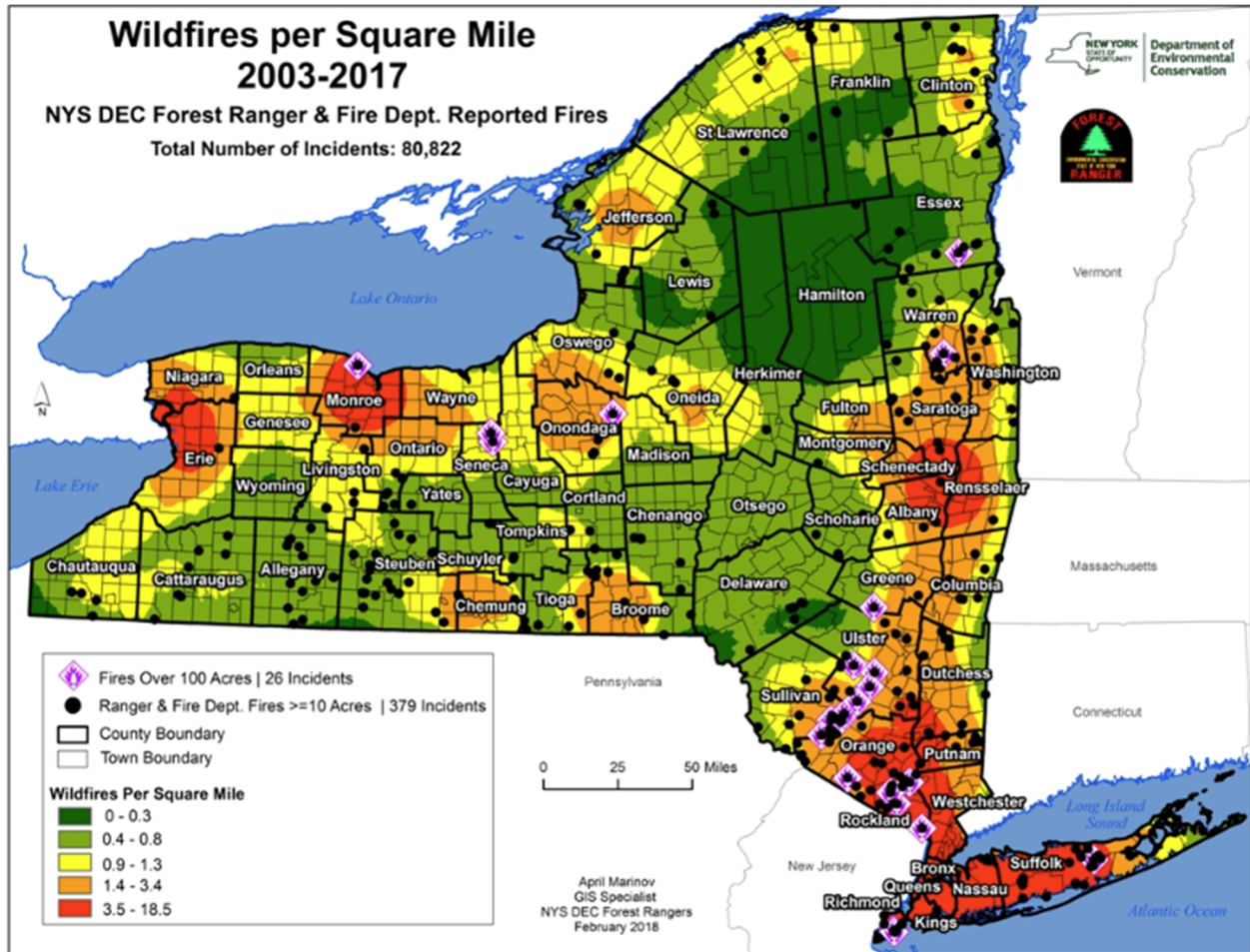
Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure Y-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Town of Victor planning area can anticipate limited future wildfire events, burning less than 10 acres.

# ANNEX Y: TOWN OF VICTOR

Figure Y-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.

# ANNEX Y: TOWN OF VICTOR

**Table Y-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

For the Town of Victor, the impact from a wildfire event can be considered “Limited,” meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX Y: TOWN OF VICTOR

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, 23 wind events are known to have occurred in the Town of Victor. Table Y-35 presents information on known historical events impacting the Town of Victor.

**Table Y-35. Historical Wind Events, 1956-2023<sup>16</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	8/31/1993	Unknown	0	0	\$102,269	\$0
	5/31/1998	Unknown	0	0	\$54,577	\$0
	9/7/1998	Unknown	0	0	\$1,810,336	\$0
	7/22/2002	55	0	1	\$74,002	\$0
	7/26/2005	50	0	0	\$53,050	\$0
	8/24/2007	50	0	0	\$17,094	\$0
	8/16/2010	50	0	0	\$13,566	\$0
	5/3/2012	50	0	0	\$19,331	\$0
	5/29/2012	50	0	0	\$12,887	\$12,887
	7/8/2014	55	0	0	\$12,431	\$0
	6/10/2015	52	0	0	\$18,616	\$0
	6/23/2015	50	0	0	\$12,411	\$0
	8/10/2015	50	0	0	\$18,641	\$0
	8/13/2016	50	0	0	\$12,297	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	10/15/2017	50	0	0	\$14,409	\$0
	8/16/2019	50	0	0	\$1,154	\$0
	7/19/2020	51	0	0	\$11,431	\$0
	7/19/2020	51	0	0	\$1,143	\$0
	6/21/2021	50	0	0	\$2,180	\$0
	6/21/2021	50	0	0	\$1,090	\$0
	8/16/2022	51	0	0	\$514	\$0

<sup>16</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.



## ANNEX Y: TOWN OF VICTOR

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
	4/1/2023	51	0	0	\$2,056	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>1</b>	<b>\$2,275,091</b>	<b>\$12,887</b>

Based on the list of historical wind events for the Town of Victor, seven of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of Victor can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table Y-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of Victor	1 Emergency Medical Services (EMS) Station, 13 Evacuation Shelters, 3 Fire Stations, 1 Hospital, 4 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bus Garage

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 430 manufactured homes are in the Town of Victor (6 percent of total housing stock). In addition, 28 percent (approximately 1,937 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during wind events.

**Table Y-37. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Town of Victor	1,937	430

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 3 percent of the Town of Victor’s population live below the poverty level (Table Y-38).

**Table Y-38. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of Victor	410

# ANNEX Y: TOWN OF VICTOR

Impact of wind events experienced in the Town of Victor would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$2,287,978 damages (in 2023 dollars) in the Town of Victor due to wind events. The estimated average annual loss from a wind event is \$33,896.

**Table Y-39. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town and Village of Victor	\$2,287,978	\$33,896

## CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

## HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX Y: TOWN OF VICTOR

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TV-1: Regional Watershed Study</b>	
<b>Name of Jurisdiction:</b>	Town of Victor
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Periodic flooding and subsequent property damage from Mud Creek.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Encourage Ontario County to conduct regional drainage studies of the creek watersheds to realize a comprehensive solution to drainage concerns.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TV-2: Regional Watershed Study
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Development of a drainage analysis and mitigation strategy for Ganargua (aka Mud), Beaver and Black Brook Creeks watersheds. The towns of Canandaigua, East Bloomfield, Farmington, Manchester, and Victor would coordinate in a comprehensive approach to correcting drainage concerns. The plan will include a detailed inventory and assessment of conditions as well as recommendations for mitigation.
<b>Summary of Evaluation Benefits (losses avoided):</b>	
<b>Estimated Cost:</b>	Flood damage from periodic flooding of creeks and streams.
<b>Other Factors Considered:</b>	\$150,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Planning
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2021
<b>Potential Fund Sources:</b>	FEMA grant award, EPA grant award and partial cost sharing by all municipalities involved.
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Lead Municipality coordinates meeting minutes, hosts meetings, and posts meeting minutes on website. County coordinates consultant's scope of service and deliverables.
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Defer to Plan Update. However, Town has concerns that all municipalities involved may not participate in the study.

## ANNEX Y: TOWN OF VICTOR

<b>Previous Action Worksheet</b>	
<b>TV-2: Storm Water Facilities Maintenance Plan</b>	
<b>Name of Jurisdiction:</b>	Town of Victor
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Potential flooding from improper maintenance of storm water management facilities.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Develop policies and plans for maintenance of storm water infrastructure, including detention ponds.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	TV-2: Storm Water Facilities Maintenance Plan
<b>Action or Project Description:</b>	In the past few decades, the Town of Victor has experienced continued and significant development in residential, commercial, and industrial sectors. In compliance with NYS SPDES requirements many storm water management ponds and other facilities have been built to mitigate flooding and environmental damage caused by increased runoff. Policies and a plan for their maintenance are needed to ensure they continue to work as designed.
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	Flood damage resulting from failure of storm water facilities that have not been properly maintained. \$50,000-100,000 to develop the policies and plan
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Victor Town Board
<b>Action/Project Priority:</b>	High
<b>Timeline for Completion:</b>	2019
<b>Potential Fund Sources:</b>	Victor Town Budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	n/a
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Completed. In 2020 the Town of Victor modified Chapter 211 of the Zoning Code, Article V Stormwater Control to require property owners that have a stormwater facility on their property to have the stormwater management facility inspected and certified once every three years by a professional licensed engineer. If the inspection finds any deficiencies in the stormwater facility the property owner is required to complete the maintenance. The combination of the Town of Victor completing stormwater facility

## ANNEX Y: TOWN OF VICTOR

	<p>maintenance within the Drainage Improvement Area and the property owners completing maintenance on the stormwater facilities outside of the Drainage Improvement Area has helped tremendously with drainage concerns during severe rain events.</p>
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# ANNEX Y: TOWN OF VICTOR

## NEW MITIGATION ACTIONS

TOWN OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Dam Failure	Boughton Park (Fairport Reservoir) Dam Repair Phase Project: Since the dams were initially built, there has been settling of the dam now causing downstream flooding impacts and concerns that the structure is potentially compromised.	Dam repair/compliance of the east and west dams at Boughton Park in the Town of East Bloomfield but would affect the Town of Victor.	No	Further review required	12-60 months	Town Board, in conjunction with Town of East and West Bloomfield	\$4,258,705	Improve risk assessment; Reduce risk of damage or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget; Grant submitted to DHSES/FE MA	H	Safety/Security
2	6.1	Drought, Flood	Green Infrastructure Policy: Explore alternative ways to promote mitigation and preserve the land within the Town. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Draft & implement a Green Infrastructure Policy per the Town of Victor's Comprehensive Plan for parks, nature preserves, greenbelts, etc.	No	Further review required	24-36 months	Town Planning & Building Department	Staff Time	Reduce impacts of flood through expanded greenspace and restoration of floodplains and wetlands; Reduce impacts of drought through green infrastructure that works to replenish groundwater reserves; Reduce impacts of Urban Island Heat effect in densely populated areas through tree planting.	Local Department Budget;	M	Communication
3	2.3	Flood	Regional Watershed Study: Encourage Ontario County to conduct regional drainage studies of the creek watersheds to realize a comprehensive solution to the drainage concerns. Town has concerns that all municipalities involved may not participate in	Development of a drainage analysis and mitigation strategy for Ganargua (aka Mud), Beaver and Black Brook Creeks watersheds. The Towns of Canandaigua, East Bloomfield, Farmington, Manchester,	No	Further review required	24-60 months	Town Board in conjunction with Ontario County Planning Department and Towns of Canandaigua, East	Staff Time \$200,000	Improve risk assessment; Reduce risk of damage or injuries through drainage improvements; Reduce risk of damages and injuries through	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable), EPA, local	M	Safety/Security

# ANNEX Y: TOWN OF VICTOR

TOWN OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			the study. This project protects and Victor would coordinate in a comprehensive approach to correcting drainage concerns. The plan will include a detailed inventory and assessment of conditions as well as recommendations for mitigation.					Bloomfield, Farmington, and Manchester		comprehensive planning.	bonds		
4	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
5	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication



# ANNEX Y: TOWN OF VICTOR

TOWN OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			information on mitigation measures residents can employ to reduce damages to their property.	measures to reduce injuries, fatalities, and property damages. This can include identifying warning stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.									
6	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX Y: TOWN OF VICTOR

TOWN OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			information on mitigation measures residents can employ to reduce damages to their property.	property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.									
8	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or	No	N/A	36 months	Town Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX Y: TOWN OF VICTOR

TOWN OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).									
10	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
11	3.3	Dam Failure, Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
12	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX Y: TOWN OF VICTOR

TOWN OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.									
13	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
15	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX Y: TOWN OF VICTOR

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of Victor
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	X
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	X
Emergency Operations Plan	X
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	X
Evacuation Plan	X
Floodplain Management Plan	X
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	X
Open Space Plan	X
Stormwater Management Plan	X
Transportation Plan	X
Watershed Protection Plan	X
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X

## ANNEX Y: TOWN OF VICTOR

COMMUNITY CAPABILITY CHECKLIST	Town of Victor
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	X
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX Y: TOWN OF VICTOR

COMMUNITY CAPABILITY CHECKLIST	Town of Victor
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	X
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	X
STAFF / DEPARTMENTS	
Building Code Official	
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	X
Personnel with Hazard Knowledge	X
Planners	X
Public Information Official	X
Resource Development/ Grant Writer	X





**ANNEX Z**  
**VILLAGE OF VICTOR**

# ANNEX Z: VILLAGE OF VICTOR

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- Note to the Reviewer ..... 2
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  - Population Growth ..... 4
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- Hazard Profiles ..... 7
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## ANNEX Z: VILLAGE OF VICTOR

### JURISDICTION PROFILE

#### OVERVIEW

The Village of Victor is located within the Town of Victor in Ontario County, New York and has a population of over 2,700. The village is in the southeast part of the town and is southeast of the City of Rochester. According to the United States Census Bureau, the village has a total area of 1.4 square miles, all land. New York State Route 96 passes through the village. Figure Z-1 shows the general location of the Village of Victor.

### VILLAGE OF VICTOR CONTACT INFORMATION

Name: Gary Hadden

Title: Mayor

Phone: (585) -924-3311

Address: 60 East Main St., Victor, NY 14564

Email: [gary.hadden@villageofvictor.org](mailto:gary.hadden@villageofvictor.org)

### NOTE TO THE REVIEWER

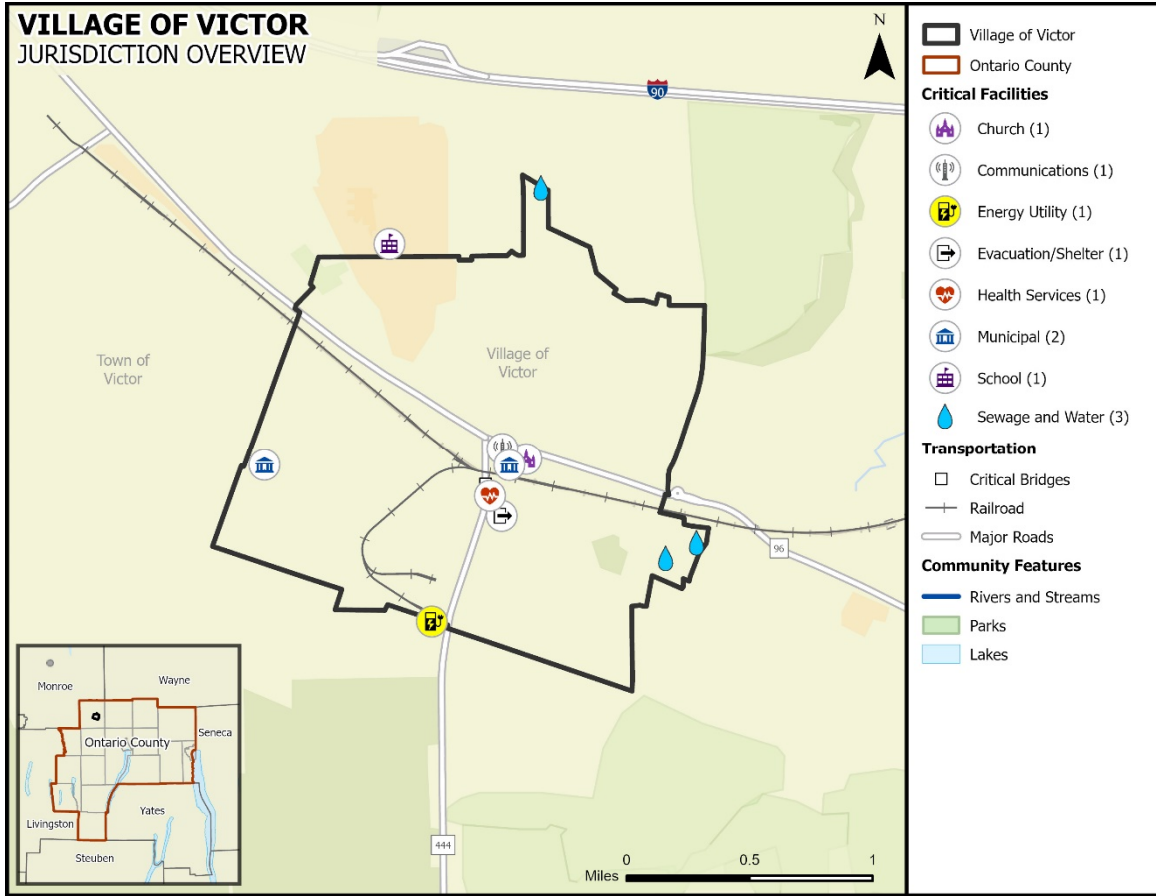
It is noted that the Village of Victor and the Town of Victor are not listed separately in the NCEI. The NCEI is the most reliable source for historical storm event data. While the plan incorporates local and team input for historical events, for the purposes of this evaluation, both jurisdictions will be evaluated as equal entities with similar exposure and vulnerability due to their close proximity.

#### **Figure Z-1. Village of Victor Planning Area<sup>1</sup>**

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<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

# ANNEX Z: VILLAGE OF VICTOR



## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Village of Victor has an official population of 2,744 residents, a 1.8 percent increase since the 2010 census. Table Z-1 summarizes select characteristics of vulnerable or sensitive populations in the Village of Victor using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in a given area at a given time.

**Table Z-1. Population Distribution for the Village of Victor**

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>



## ANNEX Z: VILLAGE OF VICTOR

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Village of Victor	2,696	2,744	1.8%	126	545	148

### POPULATION GROWTH

The official 2020 Village of Victor population is 2,744. Overall, the Village of Victor experienced an increase in population between 1990 and 2020 of 18.9 percent, or an increase by 436 residents. Between 2010 and 2020, the Village of Victor experienced a population growth. Table Z-2 provides historic change rates in the Village of Victor.

**Table Z-2. Population Growth for the Village of Victor, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Village of Victor	2,308	2,433	2,696	2,744	436	18.9%	48	1.8%

### FUTURE DEVELOPMENT

To better understand how future growth and development in the Village of Victor might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table Z-3, as provided by Cornell University's Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

**Table Z-3. Ontario County Population Projections**

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

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LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table Z-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table Z-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Village of Victor	Mayor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Village of Victor's website. A total of 12 surveys were completed for the Village of Victor. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide

## ANNEX Z: VILLAGE OF VICTOR

opportunities for additional public input. The public can review the Plan on the Village of Victor's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.



## ANNEX Z: VILLAGE OF VICTOR

### HAZARD PROFILES

#### DAM FAILURE

The Village of Victor is not profiling dam failure. The Village of Victor does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

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### DROUGHT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Village of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Victor can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Victor, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Village of Victor planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Village of Victor:

**Table Z-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

The population over 65 in the Village of Victor is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 671 potentially vulnerable residents in the Village of Victor based on age. In addition, an estimated 5 percent of the Village of Victor’s population live below the poverty level (Table Z-6).

**Table Z-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Victor	545	126	148

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX Z: VILLAGE OF VICTOR

### EXTREME COLD

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Village of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Victor can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Victor, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Victor planning team members identified the following critical facilities (Table Z-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Village of Victor:

**Table Z-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

The population over 65 in the Village of Victor is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 671 potentially vulnerable residents in the Village of Victor based on age. In addition, an estimated 5 percent of the Village of Victor’s population live below the poverty level (Table Z-8).

**Table Z-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Victor	545	126	148

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX Z: VILLAGE OF VICTOR

### EXTREME HEAT

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Village of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Victor can expect to experience an extreme heat event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Victor, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Victor planning team members identified the following critical facilities (Table Z-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Village of Victor:

**Table Z-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

The population over 65 in the Village of Victor is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 671 potentially vulnerable residents in the Village of Victor based on age. In addition, an estimated 5 percent of the Village of Victor’s population live below the poverty level (Table Z-10).

**Table Z-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Victor	545	126	148

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

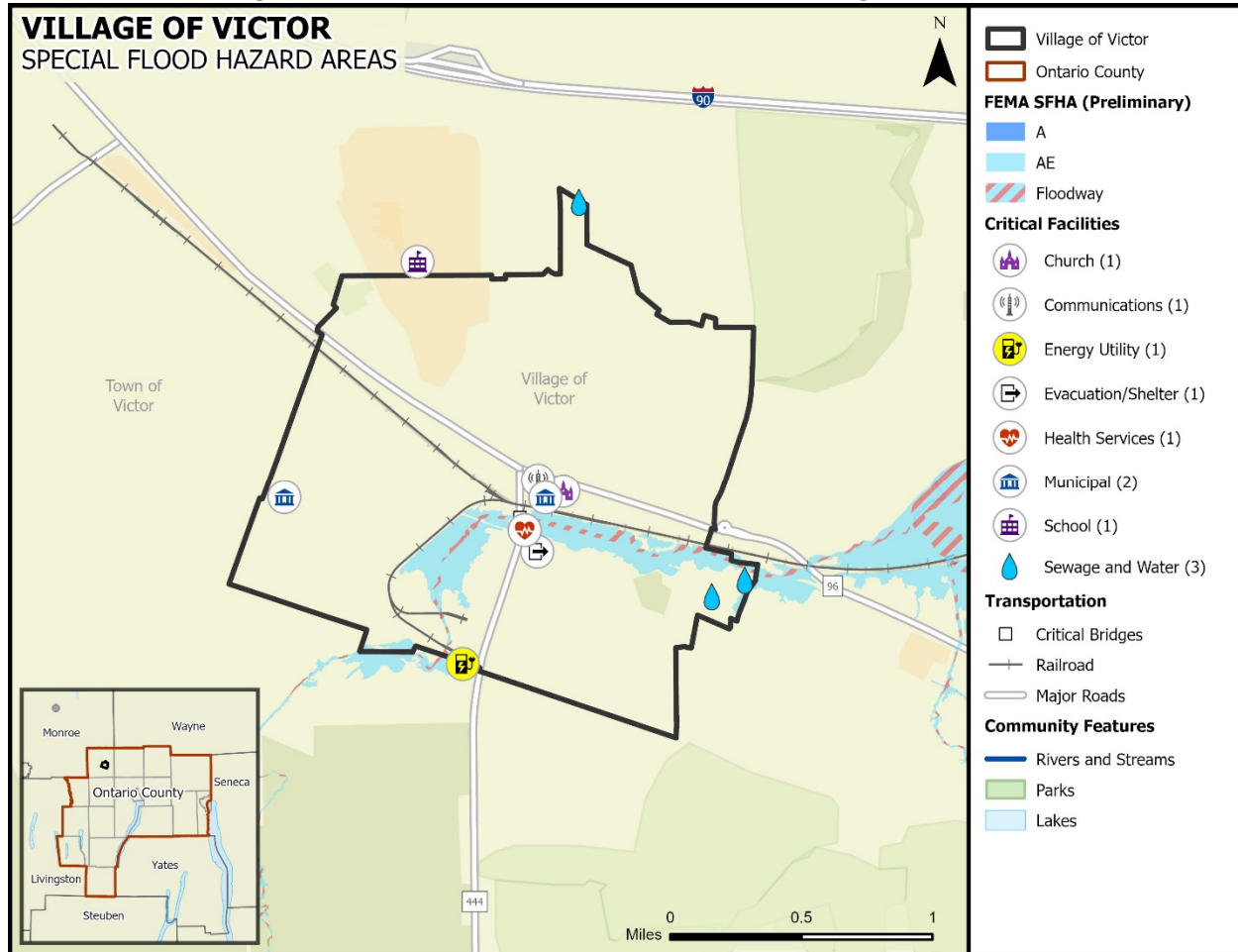
# ANNEX Z: VILLAGE OF VICTOR

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Village of Victor, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Village of Victor, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure Z-2.

**Figure Z-2. Estimated Flood Zones in the Village of Victor<sup>8</sup>**



### HISTORICAL OCCURRENCES

Table Z-11 provides the historical occurrences of flood events for the Village of Victor according to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County. From January 1996 through to August 2023, one flood events were known to have impacted the Village of Victor, based upon NCEI records. Flood events are often

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)

## ANNEX Z: VILLAGE OF VICTOR

reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

**Table Z-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	6/13/2013	0	0	\$12,684	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$12,684</b>	<b>\$0</b>

Based on the list of historical flood events for the Village of Victor, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Victor can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Victor planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. Table Z-12 includes the critical facilities in the Village of Victor located in the floodplain. Impacts to critical facilities located in the floodplain are listed in detail in Section 9.

**Table Z-12. Critical Facilities in the Floodplain**

JURISDICTION	CRITICAL FACILITY	FACILITY TYPE	FLOODPLAIN (1% or 0.2%)
Town of Richmond	Waste Water Treatment Facility <sup>10</sup>	Utility	1%

Historic loss estimates due to flood are presented in Table Z-13 below.

**Table Z-13. Potential Annualized Losses, 1996-2023<sup>11</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Village of Victor	1	\$12,684	\$461

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Victor’s population live below the poverty level (Table Z-14). While warning times for these type

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Indicated on preliminary flood maps as only partially in the floodplain. History of flooding at the site is noted.

<sup>11</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX Z: VILLAGE OF VICTOR

of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table Z-14. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Victor	148

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table Z-15 depicts the level of impact for the Village of Victor.

**Table Z-15 Village of Victor Impact**

JURISDICTION	IMPACT	DESCRIPTION
Village of Victor	Limited	It is anticipated that the Village could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Village of Victor currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Village of Victor has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Compliance and maintenance actions can be found in Section 26. Flooding was identified by the Village of Victor as a high-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Village of Victor Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table Z-16 provides the most recent CAC/CAV dates along with the current status for the jurisdiction.



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Table Z-16. Compliance History

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Village of Victor	N/A	N/A	Good Standing	0

*REPETITIVE LOSS*

The Village of Victor currently has no repetitive loss or severe repetitive loss properties.

# ANNEX Z: VILLAGE OF VICTOR

## HAIL

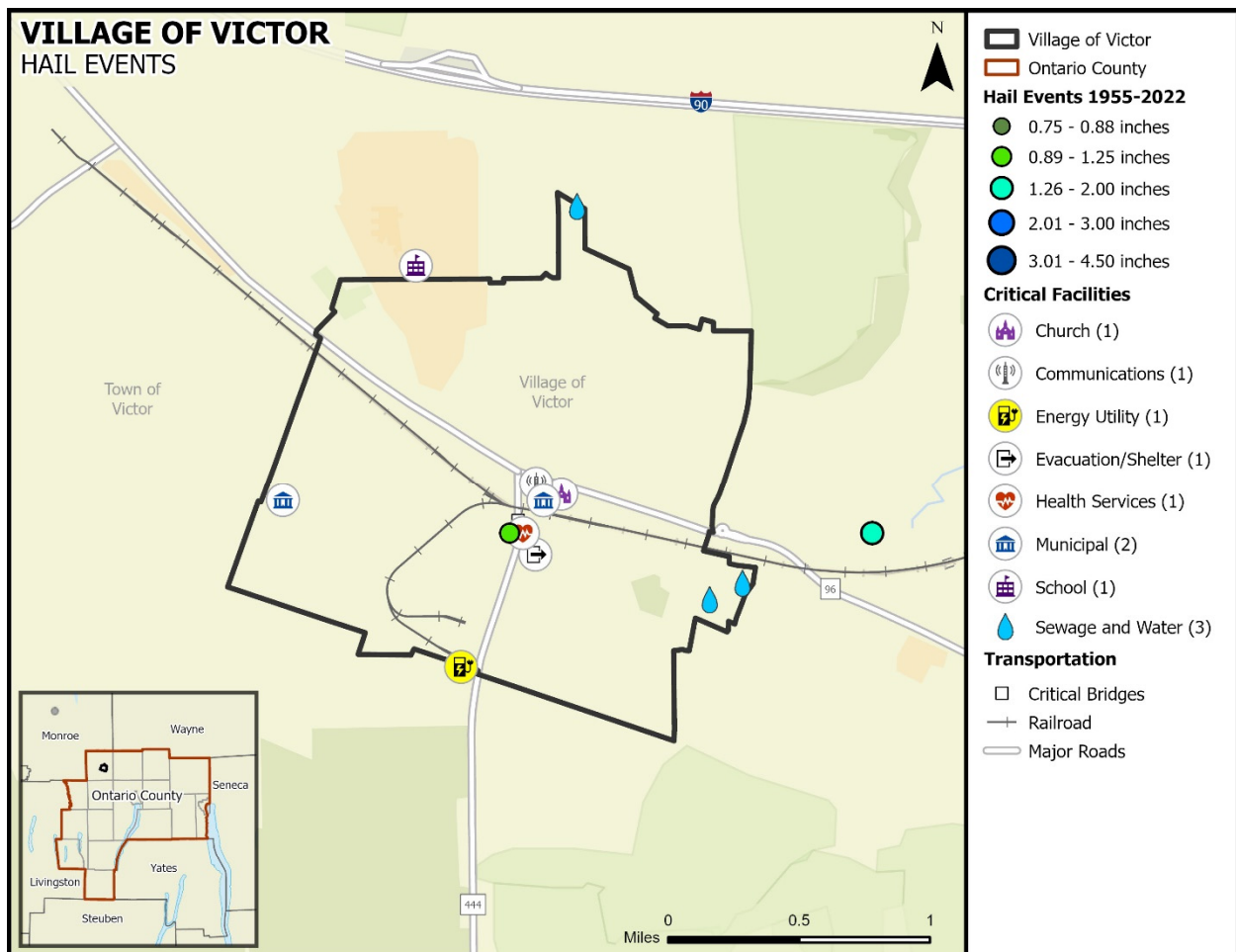
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure Z-3 demonstrates that the Village of Victor is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table Z-17. A total of four reported historical hail events impacted the Village of Victor between January 1956 through August 2023; these events were reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Village of Victor with latitude and longitude available were plotted (Figure Z-3).

Figure Z-3. Historical Hail Events, 1956-2023<sup>12</sup>



<sup>12</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX Z: VILLAGE OF VICTOR

**Table Z-17. Historical Hail Events, 1956-2023<sup>13</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	8/10/2008	1.75	0	0	\$27,037	\$0
	6/3/2014	1	0	0	\$12,426	\$0
	5/14/2017	0.75	0	0	\$0	\$0
	6/16/2022	1.75	0	0	\$0	\$0
<b>TOTALS</b>	-	<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$39,463</b>	<b>\$0</b>

Based on the list of historical hail events for the Village of Victor, one reported event has occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Victor can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table Z-18. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

According to the American Community Survey (ACS) five-year estimates for 2021, no manufactured homes are located within the Village of Victor. In addition, 59.8 percent (approximately 696 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant hail events.

**Table Z-19. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Victor	696	0

<sup>13</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

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While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Victor's population live below the poverty level (Table Z-20).

**Table Z-20. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Victor	148

Overall, the total loss estimate of property and crops in the Village of Victor is \$39,463 with an average annualized loss of \$585. Based on historic loss and damages, the impact of hail damages on the Village of Victor can be considered "Limited" severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table Z-21. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Victor	\$39,463	\$585

## ANNEX Z: VILLAGE OF VICTOR

### ICE STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Village of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Victor can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Victor, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Victor planning team members identified the following critical facilities (Table Z-22) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Village of Victor:

**Table Z-22. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

The population over 65 in the Village of Victor is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 671 potentially vulnerable residents in the Village of Victor based on age. In addition, an estimated 5 percent of the Village of Victor’s population live below the poverty level (Table Z-23).

**Table Z-23. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Victor	545	126	148

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

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### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Village of Victor is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Village of Victor over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Village of Victor.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.

## ANNEX Z: VILLAGE OF VICTOR

### LIGHTNING

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Village of Victor from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction's risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

#### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Village of Victor is considered "Highly Likely", or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

#### VULNERABILITY AND IMPACT

The Village of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table Z-24. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Victor's population live below the poverty level (Table Z-25).

**Table Z-25. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Victor	148

With no historical lightning events or losses, the impacts of lightning events can be considered "Limited" with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Village of Victor due to lightning are considered negligible.



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**Table Z-26. Potential Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Village of Victor	\$0	\$0

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### SNOW STORM

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Village of Victor, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

#### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Village of Victor can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

#### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Village of Victor, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Village of Victor planning team members identified the following critical facilities (Table Z-27) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Village of Victor:

**Table Z-27. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

The population over 65 in the Village of Victor is estimated at 20 percent of the Village’s total population and children under the age of 5 are estimated at 5 percent, or an estimated total of 671 potentially vulnerable residents in the Village of Victor based on age. In addition, an estimated 5 percent of the Village of Victor’s population live below the poverty level (Table Z-28).

**Table Z-28. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Village of Victor	545	126	148

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX Z: VILLAGE OF VICTOR

### TORNADO

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Table Z-29 provides the historical occurrences of tornado events for the Village of Victor according to the National Centers for Environmental Information (NCEI) Storm Events database. From August 1994 through August 2023, one tornado event is known to have impacted the Village of Victor, based upon NCEI records.

**Table Z-29. Historical Tornado Events, 1994-2023<sup>14</sup>**

JURISDICTION	DATE	MAGNITUDE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	7/15/1996	F1	0	0	\$56,593	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$56,593</b>	<b>\$0</b>

Based on the list of historical tornado events for the Village of Victor, there have been no recorded events since the 2018 Plan.

#### *PROBABILITY OF FUTURE EVENTS*

With one historical tornado event over a 29-year reporting period, the Village of Victor can anticipate a tornado touchdown approximately once every five years. This frequency supports an “Occasional” probability of future events.

#### *VULNERABILITY AND IMPACT*

The Village of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table Z-30. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 0 manufactured homes are in the Village of Victor (0 percent of total housing stock). In addition, 59.8 percent (approximately 696 structures) of the housing units were built before 1980. These

<sup>14</sup> Historical events are reported from August 1994 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX Z: VILLAGE OF VICTOR

structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant tornado events.

**Table Z-31. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Victor	696	0

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Victor's population live below the poverty level (Table Z-32).

**Table Z-32. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Victor	148

The total loss estimate due to tornado events is \$56,593 (in 2023 dollars), having an approximate average annual loss estimate of \$1,951. Based on historic damages and best available data the impact of a wind event on the Village of Victor would be considered "Limited", with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table Z-33. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Village of Victor	\$56,593	\$1,951

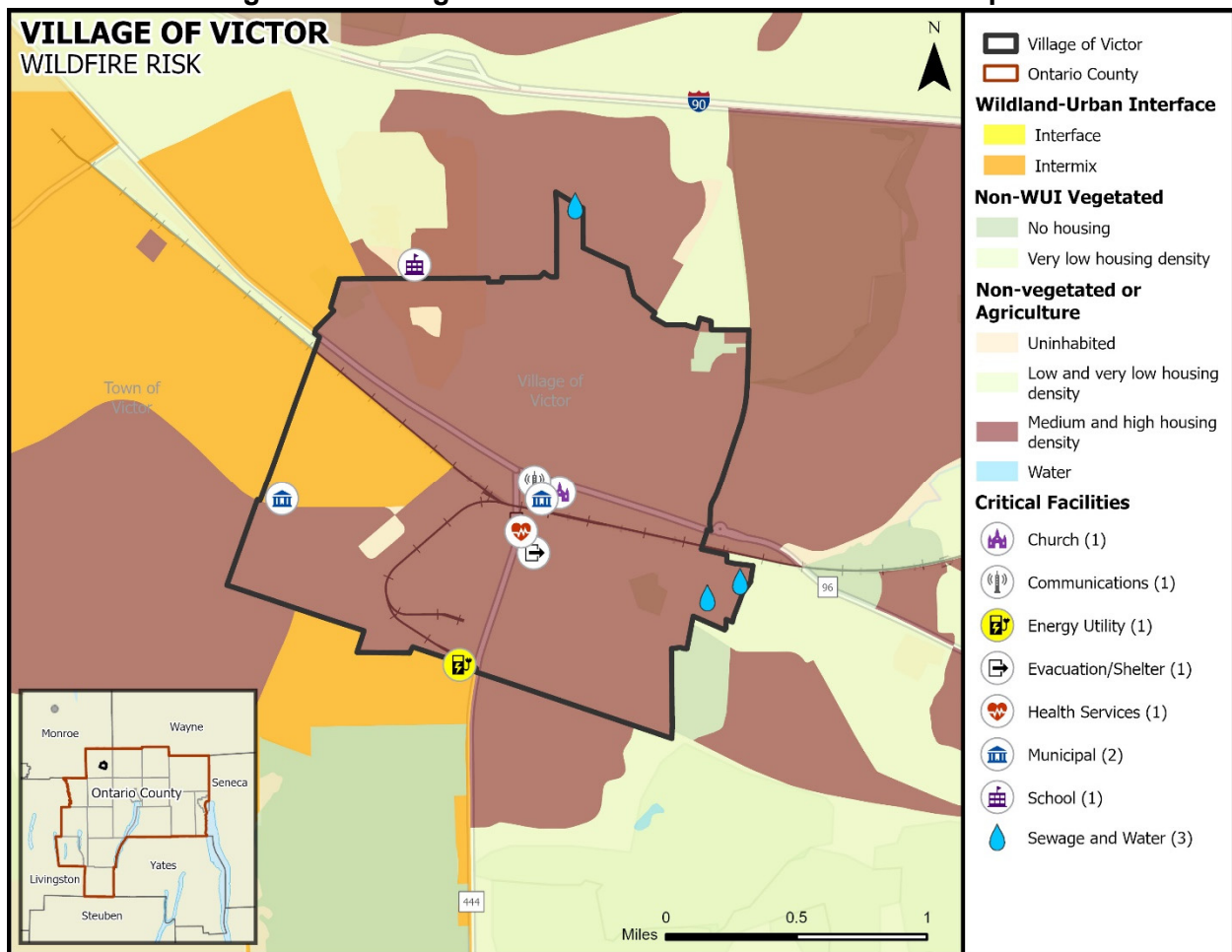
# ANNEX Z: VILLAGE OF VICTOR

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure Z-4). The Village of Victor planning area is considered at low risk for wildfires with limited WUI areas.

Figure Z-4. Village of Victor Wildland Urban Interface Map<sup>15</sup>



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division

<sup>15</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX Z: VILLAGE OF VICTOR

of Forest Protection issues color coded danger alerts. The entire planning area, including the Village of Victor, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

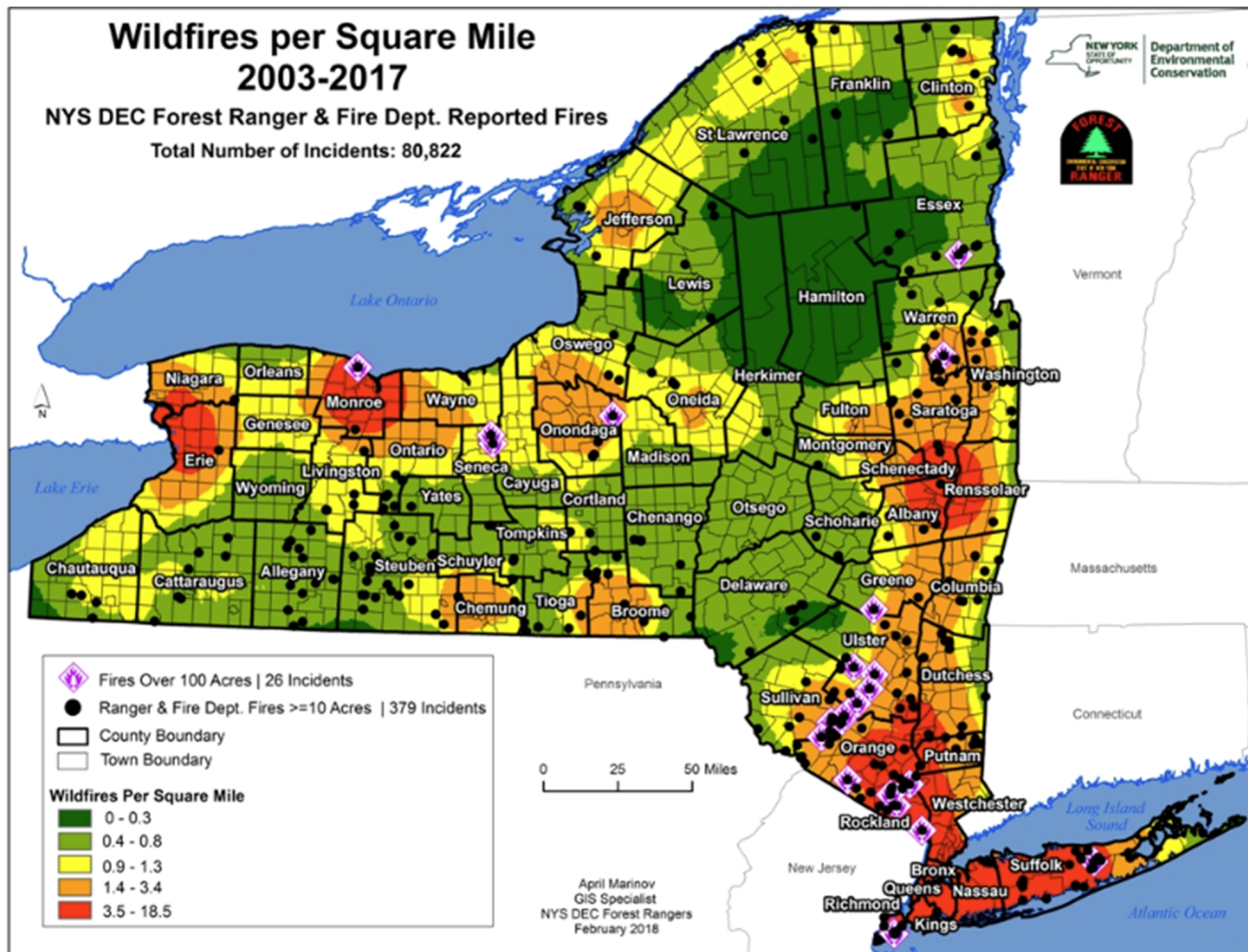
The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure Z-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Village of Victor planning area can anticipate limited future wildfire events, burning less than 10 acres.



## ANNEX Z: VILLAGE OF VICTOR

Figure Z-5. Wildfires per Square Mile, 2003-2017



### HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

### PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

### VULNERABILITY AND IMPACT

The Village of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.



## ANNEX Z: VILLAGE OF VICTOR

**Table Z-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

For the Village of Victor, the impact from a wildfire event can be considered "Limited," meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX Z: VILLAGE OF VICTOR

### WIND

#### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and is considered similar for all participating jurisdictions throughout the planning area.

#### *HISTORICAL OCCURRENCES*

Since 1956, 23 wind events are known to have occurred in the Village of Victor. Table Z-35 presents information on known historical events impacting the Village of Victor.

**Table Z-35. Historical Wind Events, 1956-2023<sup>16</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town and Village of Victor	8/31/1993	Unknown	0	0	\$102,269	\$0
	5/31/1998	Unknown	0	0	\$54,577	\$0
	9/7/1998	Unknown	0	0	\$1,810,336	\$0
	7/22/2002	55	0	1	\$74,002	\$0
	7/26/2005	50	0	0	\$53,050	\$0
	8/24/2007	50	0	0	\$17,094	\$0
	8/16/2010	50	0	0	\$13,566	\$0
	5/3/2012	50	0	0	\$19,331	\$0
	5/29/2012	50	0	0	\$12,887	\$12,887
	7/8/2014	55	0	0	\$12,431	\$0
	6/10/2015	52	0	0	\$18,616	\$0
	6/23/2015	50	0	0	\$12,411	\$0
	8/10/2015	50	0	0	\$18,641	\$0
	8/13/2016	50	0	0	\$12,297	\$0
	10/15/2017	50	0	0	\$9,606	\$0
	10/15/2017	50	0	0	\$14,409	\$0
	8/16/2019	50	0	0	\$1,154	\$0
	7/19/2020	51	0	0	\$11,431	\$0
	7/19/2020	51	0	0	\$1,143	\$0
	6/21/2021	50	0	0	\$2,180	\$0
	6/21/2021	50	0	0	\$1,090	\$0
	8/16/2022	51	0	0	\$514	\$0

<sup>16</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX Z: VILLAGE OF VICTOR

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
	4/1/2023	51	0	0	\$2,056	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>1</b>	<b>\$2,275,091</b>	<b>\$12,887</b>

Based on the list of historical wind events for the Village of Victor, seven of the reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Village of Victor can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Village of Victor planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table Z-36. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Village of Victor	2 Churches, 1 Communications Facility, 1 Energy Utility Facility, 1 Evacuation Shelter, 1 Hospital, 3 Municipal Buildings, 3 Residential Community Facilities, 2 Schools, 3 Sewage and Water Facilities, 1 Bridges

According to the American Community Survey (ACS) five-year estimates for 2021, no manufactured homes are within the Village of Victor (0 percent of total housing stock). In addition, 59.8 percent (approximately 696 structures) of the housing units were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damage during significant wind events.

**Table Z-37. Structures at Greater Risk**

JURISDICTION	SFR STRUCTURES BUILT BEFORE 1980	MANUFACTURED HOMES
Village of Victor	696	0

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 5 percent of the Village of Victor’s population live below the poverty level (Table Z-38).

## ANNEX Z: VILLAGE OF VICTOR

**Table Z-38. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Village of Victor	148

Impact of wind events experienced in the Village of Victor would be considered “Limited,” with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$2,287,978 damages (in 2023 dollars) in the Village of Victor due to wind events. The estimated average annual loss from a wind event is \$33,896.

**Table Z-39. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town and Village of Victor	\$2,287,978	\$33,896

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX Z: VILLAGE OF VICTOR

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>VV-1: Stream Corridor Restoration/Streambank Stabilization</b>	
<b>Name of Jurisdiction:</b>	Village of Victor
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Stream corridor restoration/Streambank stabilization priorities – Degraded streambanks and drainage ways increase the risk of flooding and sedimentation.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Continuation of existing programs that restore and stabilize streambanks and stream corridors and ditches.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VV-1: Stream corridor restoration/Streambank stabilization
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Continue program of hydro seeding of ditch lines and stream banks using County equipment, village materials and manpower
<b>Summary of Evaluation Benefits (losses avoided):</b>	Minimize bank erosion and water overflow
<b>Estimated Cost:</b>	Cost for seeding and staff time – Village budget
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village of Victor
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Ontario County (equipment) Village of Victor (material & manpower)
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	DPW Operations Plan, Floodplain Management Plan with support from Ontario County SWCD
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	Completed. Have made at wastewater treatment plant; bermed the area near the creek to keep creek from breaching into the plant.

## ANNEX Z: VILLAGE OF VICTOR

<b>Previous Action Worksheet</b>	
<b>VV-2: Erosion/Steep Slope Controls</b>	
<b>Name of Jurisdiction:</b>	Village of Victor
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Erosion/steep slope concerns - new development requires a grading plan; have a sediment and erosion program and a tree trimming/planting program.
<b>Potential Actions/Projects (not being implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Continuation of existing programs that: <ol style="list-style-type: none"> <li>1) require new development to include proper site grading and erosion controls</li> <li>2) Plant new and maintain existing trees</li> </ol>
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	VV-2: Erosion/Steep Slope Controls
<b>Name of Action or Project:</b>	VV-2: Erosion/Steep Slope Controls
<b>Action or Project Description:</b>	Continuation of existing programs – tree trimming and planning, site review for new development
<b>Summary of Evaluation Benefits (losses avoided):</b>	Lessen erosion, property damage, potential loss of life Current staff and budget
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Village Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Village budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	DPW Operations Plan, Floodplain Management Plan, Village Tree Board
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Completed and Defer to Plan Update. The Village has a tree board and code within the village. Annually there is an evaluation of trees within village right of way and marked for what needs to be trimmed or what needs to be taken down, versus those that are healthy. Village still would like to pursue developing an Erosion Plan / Sediment & Erosion program.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

## ANNEX Z: VILLAGE OF VICTOR

<b>Previous Action Worksheet</b>	
<b>VV-3: Wet Weather Pumps at Wastewater Treatment Plant</b>	
<b>Name of Jurisdiction:</b>	Village of Victor
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Wastewater treatment issue during lower flow times, and storms - need to install a pump station at the Wastewater Treatment Plant.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Install a pump station at the Wastewater Treatment Plant to provide continued operation and protection of operations and facilities during 500yr flood events.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number: Name of Action or Project:</b>	VV-3: Wet weather pumps at wastewater treatment plant
<b>Action or Project Description:</b>	The Village will purchase wet weather pumps (if funding becomes available)
<b>Summary of Evaluation Benefits (losses avoided): Estimated Cost: Other Factors Considered:</b>	This would intercept high flows and divert to two lined ponds during storms to hold and treat during times of lower flows. This will eliminate the need to set up portable pumps during storms. \$1,500 per horsepower required
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	DPW Superintendent
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	Village budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	DPW Operations Plan
<b>2024 Analysis</b>	
<b>Date of Status Report: Report of Progress: Evaluation of Effectiveness:</b>	Completed and Defer to Plan Update. Village has made 2.2 million upgrades at plant. Purchased new emergency pumps. However unsure if pump stations were incorporated or if there is still a need.



# ANNEX Z: VILLAGE OF VICTOR

## NEW MITIGATION ACTIONS

VILLAGE OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Flood	Main sewage line on School St. to Maple Ave: Enhance inflow and keep it out of wastewater plant. This project will protect the community and reduce risk of flooding.	Funds have been allocated through development that is being put in at 160 School St. to enhance main sewage line.	No	Further review required	2024	Village Board and Senior Developer	Developer to upfront cost of material and Village to provide labor	Reduce risk of flood water contamination; Reduce risk of surface water infiltration and sewage backup; Ensure continuity of critical services.	In-kind labor	H	Safety/Security
2	5.4	Flood	Erosion Plan / Sediment & Erosion program: Excessive erosion results in excessive sediment being deposited resulting in the diversion of flows from the stream to roadways and other areas. This project will protect the community and reduce risk of flooding.	Erosion/steep slope concerns and requirement to have a sediment and erosion program for new development.	No	Further review required	24-36 months	Village Board	Staff Time	Implementation of this program would result in prompt repairs to destabilized streams; improved protection for adjacent infrastructure; improved safety for motorists; and reduced sediment reaching waterbodies.	Local Department Budget, Staff time	H	Safety/Security
3	1.4	Flood	Pump Stations at Wastewater Treatment Plant: Install a pump station at the Wastewater Treatment Plant to provide continued operation and protection of operations and facilities during 500yr flood events. This project helps ensure critical facilities continue to provide services during unforeseen events.	Assessment of new plant upgrades to ensure pump stations have been incorporated. If not, implement and install.	Yes	Further review required	24-36 months	Village Board	Staff Time	Reduce risk of flood water contamination; Reduce risk of surface water infiltration and sewage backup; Ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Safety/Security

# ANNEX Z: VILLAGE OF VICTOR

VILLAGE OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
4	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts, water conservation techniques, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication
5	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snow storms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX Z: VILLAGE OF VICTOR

## VILLAGE OF VICTOR PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
6	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree removal/branch maintenance, covered parking, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
7	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX Z: VILLAGE OF VICTOR

VILLAGE OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
8	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Village Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
9	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Educate property owners, elected officials, and planning and zoning decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).	No	N/A	36 months	Village Board in conjunction with Ontario County Planning and Soil and Water Conservation district	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication

# ANNEX Z: VILLAGE OF VICTOR

VILLAGE OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
10	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties.	No	N/A	36 months	Village Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
11	3.3	Drought, Flood, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Village Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
12	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc.	No	N/A	36-60 months	Village Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX Z: VILLAGE OF VICTOR

VILLAGE OF VICTOR PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
13	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.	No	N/A	36-60 months	Village Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
14	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Village Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
15	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Village Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	1.4	Flood	Feasibility Study at Wastewater Treatment Plant: Determine feasible alternatives to mitigate repetitive flood	Study to determine the most feasible alternative to mitigate flood losses. Implement cost effective	Yes	Further review required	36-60 months	Village Board	\$1,000,000-5,000,000	Reduce risk of flood water contamination; Reduce risk of surface water infiltration and	Local Department Budget; HMGP,	M	Safety/Security

# ANNEX Z: VILLAGE OF VICTOR

## VILLAGE OF VICTOR PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			issues at plant. Implement cost-effective alternative identified in study to ensure continuity of operations during 500yr flood events. This project helps ensure critical facilities continue to provide services during unforeseen events.	solution identified in study.						sewage backup; Ensure continuity of critical services.	BRIC, CDBG, PA 406 (when applicable) local bonds		



## ANNEX Z: VILLAGE OF VICTOR

### CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Village of Victor
<b>PLANS</b>	
Capital Improvements Plan	X
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	
Drought Contingency Plan	
Economic Development Plan	X
Emergency Management Action Plan	X
Emergency Operations Plan	X
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	X
Open Space Plan	X
Stormwater Management Plan	X
Transportation Plan	X
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	X
Critical Infrastructure Protection	X
Fire Codes	X

## ANNEX Z: VILLAGE OF VICTOR

COMMUNITY CAPABILITY CHECKLIST	Village of Victor
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	X
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	X
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X
National Flood Insurance Program Participant	X

## ANNEX Z: VILLAGE OF VICTOR

COMMUNITY CAPABILITY CHECKLIST	Village of Victor
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	X
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	X
Engineer/Public Works Official	X
Environmental Conservation Specialist	X
Floodplain Administrator	X
GIS Specialist	X
Personnel with Hazard Knowledge	X
Planners	X
Public Information Official	
Resource Development/ Grant Writer	



**ANNEX AA**  
**TOWN OF WEST**  
**BLOOMFIELD**

ANNEX AA: TOWN OF WEST BLOOMFIELD

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# ANNEX AA: TOWN OF WEST BLOOMFIELD

## JURISDICTION PROFILE

### OVERVIEW

The Town of West Bloomfield is in Ontario County, New York, with a population of 2,700. The town is on the country's western border and sits parallel to the Town of East Bloomfield and is south of the City of Rochester. According to the United States Census Bureau, the town has a total area of 25.9 square miles, of which 25.5 square miles is land and 0.04 square miles is water. West Bloomfield is the second smallest city in the county by area. The town features several high points with view of the Finger Lakes Region, including the Honeoye and Canandaigua Lake area. Figure AA-1 shows the general location of the Town of West Bloomfield.

## TOWN OF WEST BLOOMFIELD CONTACT INFORMATION

Name: Todd D. Campbell

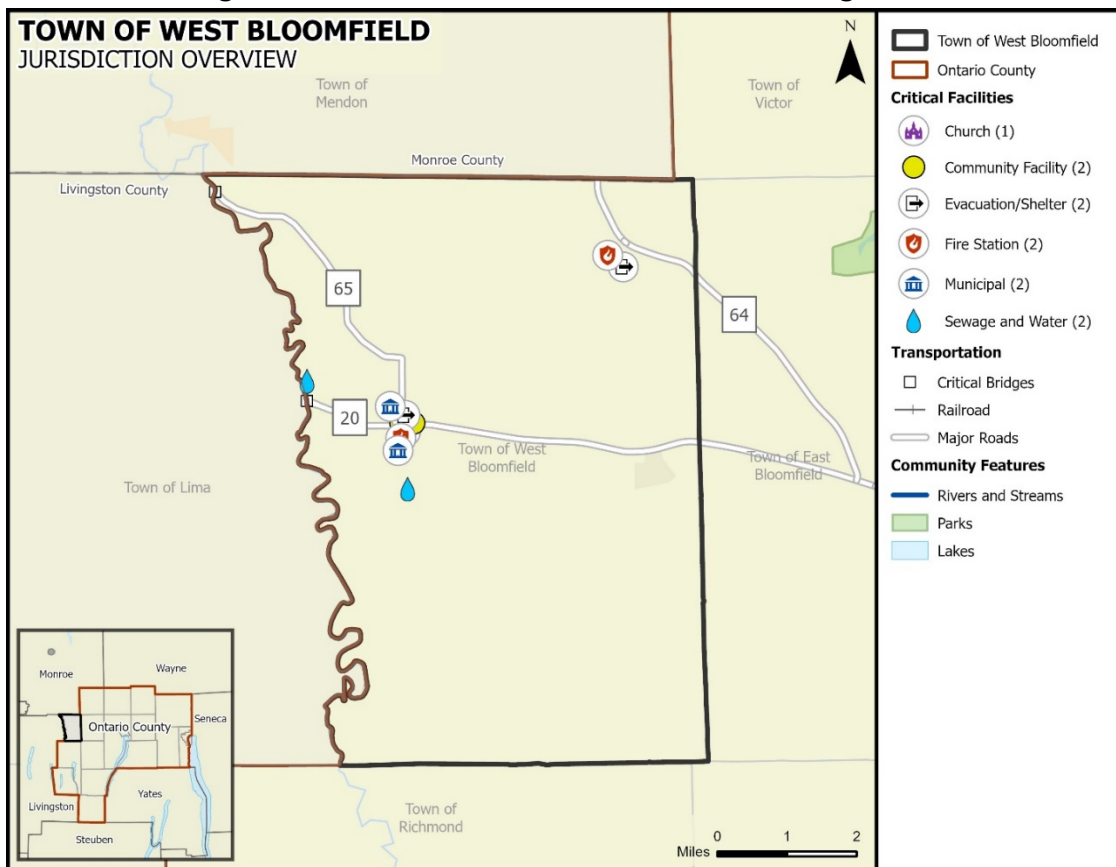
Title: Town Supervisor

Phone: (585) 624-2461

Address: 9097 Daylight Drive, West Bloomfield, NY 14585

Email: [tcampbell@townofwestbloomfield.org](mailto:tcampbell@townofwestbloomfield.org)

Figure AA-1. Town of West Bloomfield Planning Area<sup>1</sup>



<sup>1</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023)

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## POPULATION AND DEMOGRAPHICS

According to the 2020 Census population count, the Town of West Bloomfield has an official population of 2,725 residents, an 11.1 percent increase since the 2010 census. Table AA-1 summarizes select characteristics of vulnerable or sensitive populations in the Town of West Bloomfield using data from the U.S. Census Bureau 2021 American Community Survey (ACS) five-year estimates. Note that in some cases the 2021 ACS estimates may differ from the 2020 Census count; the ACS estimates are used throughout this section for consistency.<sup>2</sup>

Between official U.S. Census population counts, the estimate uses a formula based on new residential building permits and household size. It is simply an estimate and there are many variables involved in achieving an accurate estimation of people living in each area at a given time.

**Table AA-1. Population Distribution for the Town of West Bloomfield**

JURISDICTION	TOTAL 2010 POPULATION	TOTAL 2021 POPULATION	PERCENTAGE CHANGE	ESTIMATED VULNERABLE OR SENSITIVE POPULATIONS <sup>3</sup>		
				Youth (Under 5)	Elderly (Over 65)	Below Poverty Level
Town of West Bloomfield	2,466	2,725	11.1%	121	780	278

## POPULATION GROWTH

The official 2020 Town of West Bloomfield population is 2,740. Overall, the Town of West Bloomfield experienced an increase in population between 1990 and 2020 of 8 percent, or an increase by 204 residents. Between 2010 and 2020, the Town of West Bloomfield experienced a population growth. Table AA-2 provides historic change rates in the Town of West Bloomfield.

**Table AA-2. Population Growth for the Town of West Bloomfield, 1990-2020<sup>4</sup>**

JURISDICTION	1990 <sup>5</sup>	2000 <sup>6</sup>	2010	2020	POP CHANGE 1990-2020	PERCENT OF CHANGE	POP CHANGE 2010-2020	PERCENT OF CHANGE
Town of West Bloomfield	2,536	2,549	2,466	2,740	204	8%	274	11.1%

## FUTURE DEVELOPMENT

To better understand how future growth and development in the Town of West Bloomfield might affect hazard vulnerability, it is useful to consider population growth, occupied and vacant land, the potential for future development in hazard areas, and current planning and growth

<sup>2</sup> Source: <https://www.census.gov/en.html> and <https://www.census.gov/acs/www/data/data-tables-and-tools/data-profiles/2021/>

<sup>3</sup> The Estimated Vulnerable or Sensitive Populations are based off the 2021 American Community Survey 5-Year Estimates Data Profiles.

<sup>4</sup> U.S. Census Bureau

<sup>5</sup> Source: <https://www2.census.gov/library/publications/decennial/1990/cp-1/cp-1-34-2.pdf?#>

<sup>6</sup> Source: <https://www2.census.gov/library/publications/2003/dec/phc-3-34.pdf>



## ANNEX AA: TOWN OF WEST BLOOMFIELD

management efforts. This section includes an analysis of the projected population change, and economic impacts.

Population projections from 2010 to 2040 are listed in Table AA-3, as provided by Cornell University’s Program on Applied Demographics<sup>7</sup>. **This information is only available at the County level**; however, the population projection shows an increase in population density for the County, which would mean an overall increase for the planning area.

**Table AA-3. Ontario County Population Projections**

LAND AREA (SQ MI)	2010		2020		2030		2040	
	Population							
	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)	Total Number	Density (Land Area, SQ MI)
644	107,931	167.59	111,349	172.90	114,374	177.60	114,770	178.21

### PLAN MAINTENANCE

The Ontario County Hazard Mitigation Plan Update provides explanation on how each participating jurisdiction will be involved in implementing, evaluating, and enhancing the Plan over time. Please see Section 27 of this Plan for additional information regarding plan maintenance for the entire planning area.

Periodic revisions of the Plan are required to ensure that goals, objectives, and mitigation actions are kept current. When the plan is discussed in these sections it includes the risk assessment and mitigation actions as a part of the monitoring, evaluating, updating and review process. Revisions may be required to ensure the Plan remains in compliance with federal and state statutes and regulations. Table AA-4 indicates the department and title of the party responsible for Plan monitoring, evaluating, updating, and review of the Plan.

**Table AA-4. Team Member Responsible for Plan Monitoring, Evaluating, Updating, and Review of the Plan**

JURISDICTION	TITLE
Town of West Bloomfield	Town Supervisor

### PUBLIC PARTICIPATION

A series of public meetings were held throughout the Ontario County planning area to collect public and stakeholder input. Topics of discussion included the purpose of hazard mitigation, discussion of the planning process, and types of natural hazards. In addition, a public survey was developed to solicit public input during the planning process from citizens and stakeholders and to obtain data regarding the identification of any potential hazard mitigation actions or problem areas. The survey was promoted by local officials and a link to the survey was posted on the Town of West Bloomfield’s website. A total of two surveys were completed for the Town of West

<sup>7</sup> Source: <https://pad.human.cornell.edu/counties/projections.cfm>

## ANNEX AA: TOWN OF WEST BLOOMFIELD

Bloomfield. Additional meeting documentation and survey results can be viewed in Appendix E and Appendix B, respectively.

The draft Plan was made available to the general public for review and comment on Ontario County's website for 30 days. To ensure opportunities are given to all citizens including those without internet access, a paper copy of the draft plan annexes was also available at municipal offices and public library locations with a comment form that included an email and phone number for the public to provide feedback. Refer to Section 2 for additional information on public involvement in the planning process.

Public input was an integral part of the preparation of this Plan and will continue to be essential for Plan updates. The public will be directly involved in the annual evaluation, monitoring, reviews and cyclical updates. Changes or suggestions to improve or update the Plan will provide opportunities for additional public input. The public can review the Plan on the Town of West Bloomfield's website, where officials and the public are invited to provide ongoing feedback, via email.

The Planning team is responsible for notifying stakeholders and community members on an annual basis and maintaining the Plan. Media, including local newspaper and radio stations, will be used to notify the public of any maintenance or periodic review activities during the implementation, monitoring, and evaluation phases. Additionally, local news media will be contacted to cover information regarding Plan updates, status of grant applications, and project implementation. Local and social media outlets, such as Facebook and X (formerly known as Twitter), will keep the public and stakeholders apprised of potential opportunities to fund and implement mitigation projects identified in the Plan.

## ANNEX AA: TOWN OF WEST BLOOMFIELD

### HAZARD PROFILES

#### DAM FAILURE

The Town of West Bloomfield is not profiling dam failure. The Town of West Bloomfield does not own any dams and is not located in any estimated dam inundation zones. Dam failure has not impacted the community in the past and is not anticipated to impact the community in the future. Any localized flooding the community may experience due to a dam breach is addressed in the flood hazard profile. Therefore, this hazard does not require further analysis.

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## DROUGHT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the drought hazard for each participating jurisdiction (Section 6). Drought conditions are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical drought data for the County, including the Town of West Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 6 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect to experience a drought event approximately once every one to two years. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of West Bloomfield, is exposed to drought events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings.

The Town of West Bloomfield planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential hazard impacts caused by drought events. Drought impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 6. The following critical facilities would be vulnerable to drought events in the Town of West Bloomfield:

**Table AA-5. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of West Bloomfield is estimated at 29 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 901 potentially vulnerable residents in the Town of West Bloomfield based on age. In addition, an estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-6).

**Table AA-6. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	780	121	278

Historic events and losses are reported on a county-wide basis. All existing and future buildings, facilities, and populations are exposed to this hazard and could potentially be impacted. However, drought impacts are mostly experienced in water shortages, breaks in water lines, or crop and livestock losses on agricultural lands and typically have minimal impact on buildings. Please see Section 6 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## EXTREME COLD

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme cold hazard for each participating jurisdiction (Section 7). Extreme cold events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under extreme cold: cold/wind chill, extreme cold, frost/freeze, and winter weather. Historical extreme cold data for the County, including the Town of West Bloomfield, are provided on a countywide basis per the NCEI database. Therefore, all historical events are listed in Section 7 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect to experience an extreme cold event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of West Bloomfield, is exposed to extreme cold events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of West Bloomfield planning team members identified the following critical facilities (Table AA-7) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme cold impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 7. The following critical facilities would be vulnerable to extreme cold events in the Town of West Bloomfield:

**Table AA-7. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of West Bloomfield is estimated at 29 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 901 potentially vulnerable residents in the Town of West Bloomfield based on age. In addition, an estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-8).

**Table AA-8. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	780	121	278

Historic losses are reported on a county-wide basis. Please see Section 7 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## EXTREME HEAT

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the extreme heat hazard for each participating jurisdiction (Section 8). Extreme heat events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. Historical extreme heat data for the County, including the Town of West Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 8 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect to experience an extreme heat event yearly. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of West Bloomfield, is exposed to extreme heat events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of West Bloomfield planning team members identified the following critical facilities (Table AA-9) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Extreme heat impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 8. The following critical facilities would be vulnerable to extreme heat events in the Town of West Bloomfield:

**Table AA-9. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of West Bloomfield is estimated at 29 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 901 potentially vulnerable residents in the Town of West Bloomfield based on age. In addition, an estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-10).

**Table AA-10. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	780	121	278

Historic losses are reported on a county-wide basis. Please see Section 8 of this Plan for additional information on historical and annualized losses for the entire planning area.

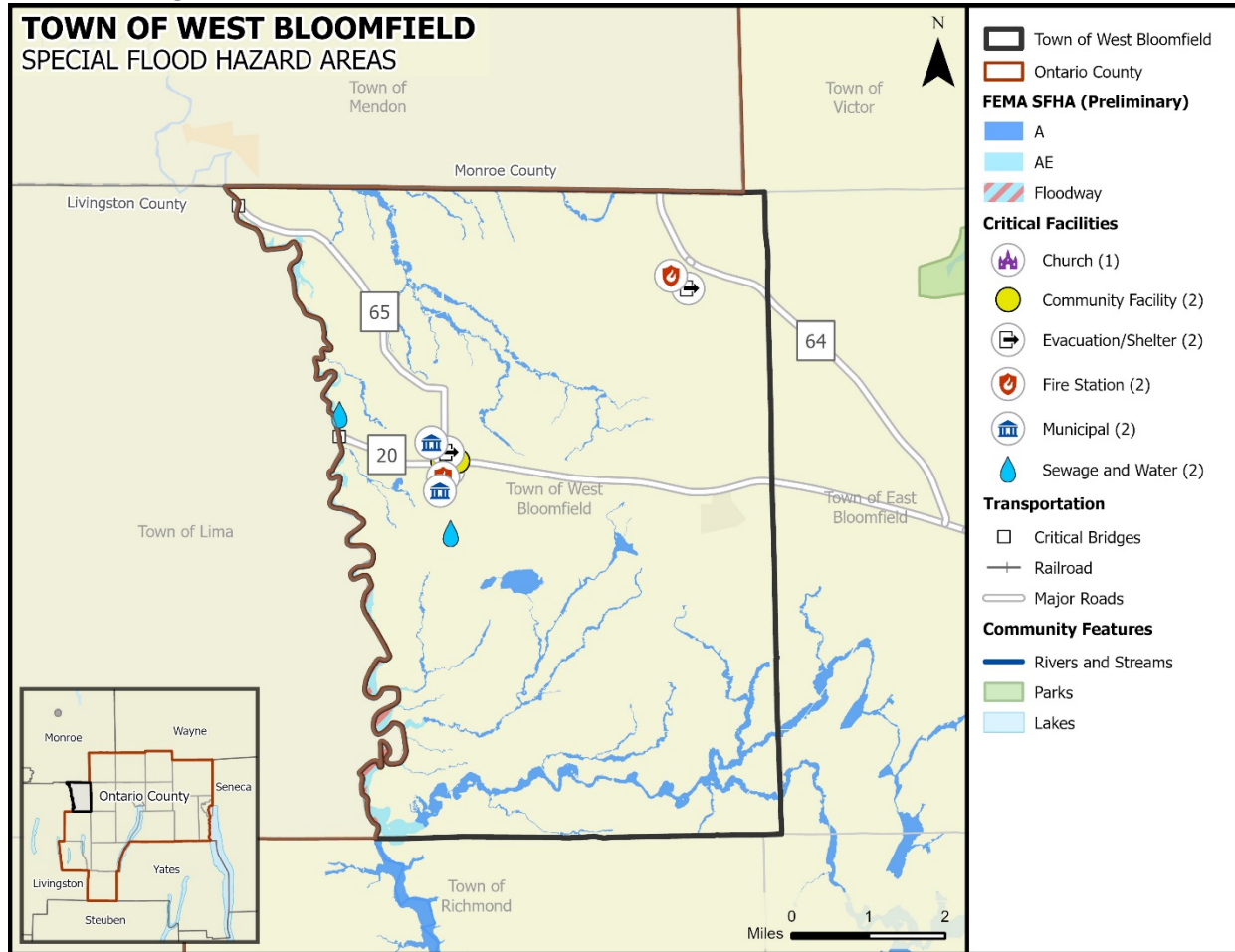
# ANNEX AA: TOWN OF WEST BLOOMFIELD

## FLOOD

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description and extent of the flood hazard for the entire Ontario County planning area in Section 9. Flood hazard delineations with elevations are available in portions of the Town of West Bloomfield, some areas feature flood hazard boundary maps only with no flood elevations. The location of estimated flood zones for the Town of West Bloomfield, based on the Digital Flood Insurance Rate Maps (DFIRM) from FEMA is illustrated in Figure AA-2.

**Figure AA-2. Estimated Flood Zones in the Town of West Bloomfield<sup>8</sup>**



### HISTORICAL OCCURRENCES

According to the Storm Prediction Center (NOAA), National Centers for Environmental Information (NCEI) database for Ontario County, two flood events were known to have impacted the Town of West Bloomfield from January 1996 through August 2023. There were no reported damages to property or crops from either of those events. Flood events are often reported on a county-wide basis, or under-reported for individual municipalities, particularly in smaller communities.

<sup>8</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), Ontario County Preliminary Flood Data (2023)



## ANNEX AA: TOWN OF WEST BLOOMFIELD

**Table AA-11. Historical Flood Events, 1996-2023<sup>9</sup>**

JURISDICTION	DATE	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of West Bloomfield	10/27/2021	0	0	\$0	\$0
	10/30/2021	0	0	\$0	\$0
<b>Totals</b>		<b>0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>

Based on the list of historical flood events for the Town of West Bloomfield, two reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

While some incidents may be reported at the local municipal level, as indicated above, County level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect to experience approximately two to three flood events every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of West Bloomfield planning team members identified critical facilities as assets that are considered the most important to the planning area and are susceptible to a range of potential impacts from a variety of natural hazards, including those facilities located in the regulatory floodplain. No critical facilities in the Town of West Bloomfield are located in the floodplain.

Historic loss estimates due to flood are presented in Table AA-12 below.

**Table AA-12. Potential Annualized Losses, 1996-2023<sup>10</sup>**

JURISDICTION	NUMBER OF EVENTS	PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of West Bloomfield	2	\$0	\$0

While all citizens are at risk of the impacts of a flood, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-13). While warning times for these type of hazard events should be substantial enough for individuals to seek shelter, individuals who work and recreate outside are also vulnerable to potential impacts of a flood event.

**Table AA-13. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	278

<sup>9</sup> Events are reported from January 1996 through August 2023; values are in 2023 dollars.

<sup>10</sup> Historical events are reported from January 1996 through August 2023; values are in 2023 dollars.

## ANNEX AA: TOWN OF WEST BLOOMFIELD

The severity of a flooding event varies depending on the relative risk to citizens and structures located within each jurisdiction. Table AA-14 depicts the level of impact for the Town of West Bloomfield.

**Table AA-14. Town of West Bloomfield Impact**

JURISDICTION	IMPACT	DESCRIPTION
Town of West Bloomfield	Limited	It is anticipated that the Town could anticipate an impact of “limited” with critical facilities shut down for a week or less, and less than 10 percent of property would be destroyed or damaged.

### *NATIONAL FLOOD INSURANCE PROGRAM (NFIP) PARTICIPATION*

The Town of West Bloomfield currently participates in the National Flood Insurance Program and is in good standing. The community has adopted a flood damage prevention ordinance that includes the minimum requirements for development in special flood hazard areas.

### *NFIP COMPLIANCE AND MAINTENANCE*

The Town of West Bloomfield has developed mitigation actions that relate to NFIP participation, maintenance or compliance. Flooding was identified by the Town of West Bloomfield as a moderate-risk hazard during hazard ranking activities at the Risk Assessment Workshop. Many of the mitigation actions for the jurisdiction were developed with flood mitigation in mind.

The Town of West Bloomfield Code Enforcement Officer is designated as the local floodplain administrator and is responsible for maintaining compliance in the NFIP through development regulations as outlines in the community flood damage prevention ordinance. The floodplain administrator is responsible for

- Permitting and inspecting construction activity in the floodplain
- Ensuring conformance with floodplain permit requirements
- Enforcing floodplain regulations
- Identifying Substantially Damaged structures and ensuring compliance during reconstruction
- Identifying Substantial Improvements in proposed development permit applications and ensuring compliance during construction
- Providing floodplain map and flood insurance information to the public
- Coordinating with FEMA to maintain the community’s participation in the NFIP
- Keeping records of construction in the floodplain

Table AA-15 provides the current status for the jurisdiction. The Town of West Bloomfield has not had a CAC/CAV as of December 2023.

**Table AA-15. Compliance History**

JURISDICTION	DATE OF LAST CAC	DATE OF LAST CAV	CURRENT NFIP STATUS	POLICIES IN FORCE
Town of West Bloomfield	N/A	N/A	Good Standing	0

### *REPETITIVE LOSS*

The Town of West Bloomfield currently has no repetitive loss or severe repetitive loss properties.

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## HAIL

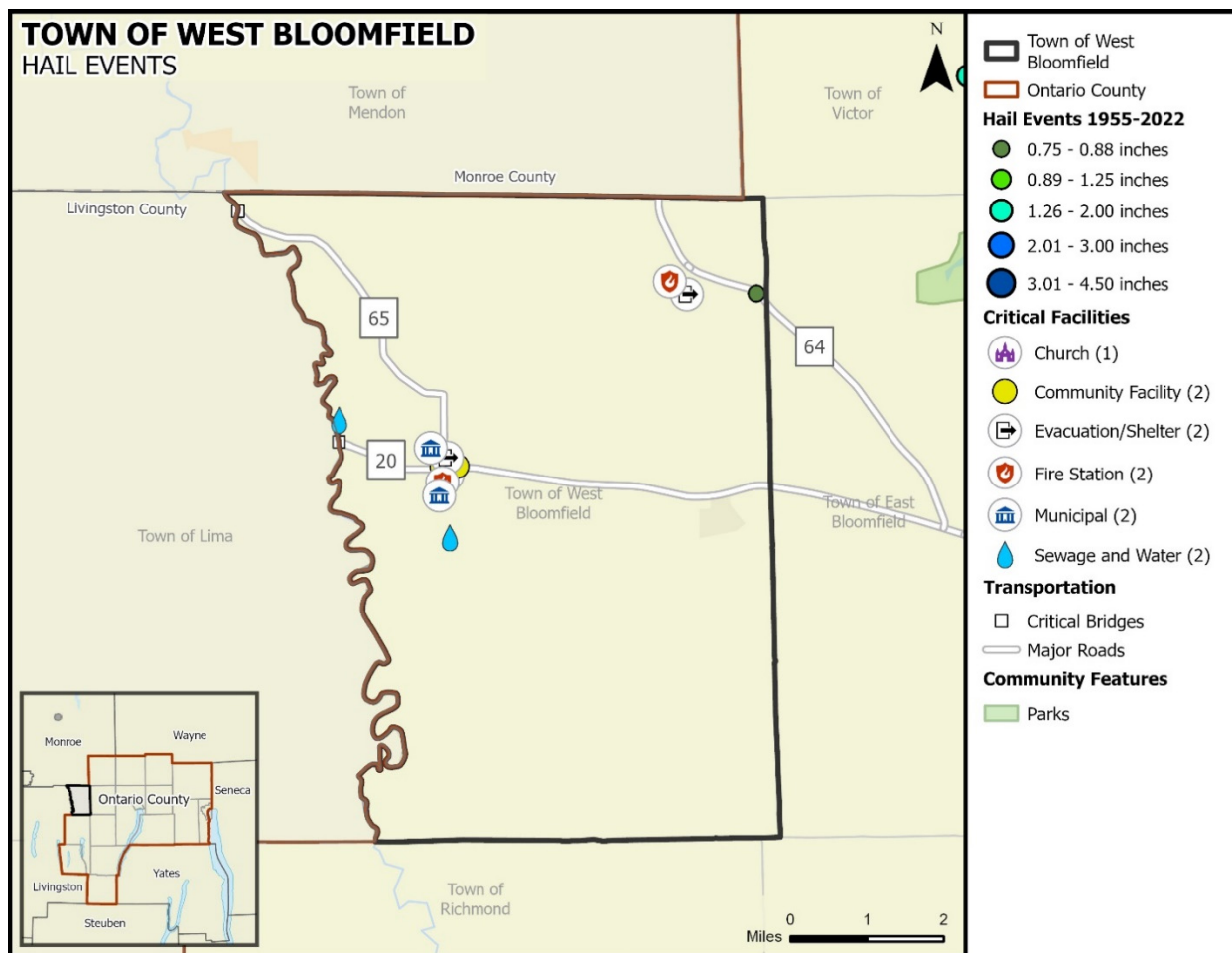
### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the hail hazard for each participating jurisdiction (Section 10). Hail events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

Historical evidence shown in Figure AA-3 demonstrates that the Town of West Bloomfield is vulnerable to hail events overall. Historical events with reported damages, injuries, or fatalities are shown in Table AA-16. A total of one reported historical hail event impacted the Town of West Bloomfield between January 1956 through August 2023; this event was reported to NCEI and NOAA databases and may not represent all hail events to have occurred during the past 67.5 years. Only those events for the Town of West Bloomfield with latitude and longitude available were plotted (Figure AA-3).

Figure AA-3. Historical Hail Events, 1955-2023<sup>11</sup>



<sup>11</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), NOAA Storm Events Database (2023)

## ANNEX AA: TOWN OF WEST BLOOMFIELD

**Table AA-16. Historical Hail Events, 1955-2023<sup>12</sup>**

JURISDICTION	DATE	MAGNITUDE (Inches)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of West Bloomfield	8/14/1998	0.75	0	0	\$9,063	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$9,063</b>	<b>\$0</b>

Based on the list of historical hail events for the Town of West Bloomfield, no reported events have occurred since the 2018 Plan.

### *PROBABILITY OF FUTURE EVENTS*

Historical hail events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect a hail event approximately once a year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

The Town of West Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by hailstorm events. Hail impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 10.

**Table AA-17. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 385 (20 percent of total housing stock) manufactured homes located in the Town of West Bloomfield. In addition, 51 percent (approximately 660 structures) of the housing structures in the Town of West Bloomfield were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant hail events.

**Table AA-18. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of West Bloomfield	385	660

While all citizens are at risk of the impacts of hail, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-19).

<sup>12</sup> Historical events are reported from January 1956 through August 2023. Only recorded events with fatalities, injuries, and/or damages are listed; values are in 2023 dollars.

## ANNEX AA: TOWN OF WEST BLOOMFIELD

**Table AA-19. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	278

Overall, the total loss estimate of property and crops in the Town of West Bloomfield is \$9,063 with an average annualized loss of \$134. Based on historic loss and damages, the impact of hail damages on the Town of West Bloomfield can be considered “Limited” severity of impact, meaning minor quality of life lost, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed or with major damage.

**Table AA-20. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of West Bloomfield	\$9,063	\$134

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## ICE STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the ice storm hazard for each participating jurisdiction (Section 11). Ice storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under ice storm: sleet, freezing fog, and ice storm. Historical ice storm data for the county, including the Town of West Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 11 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect to experience an ice storm event approximately once every five years. This frequency supports an “Occasional” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of West Bloomfield, is exposed to ice storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of West Bloomfield planning team members identified the following critical facilities (Table AA-21) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Ice storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 11. The following critical facilities would be vulnerable to ice storm events in the Town of West Bloomfield:

**Table AA-21. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of West Bloomfield is estimated at 29 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 901 potentially vulnerable residents in the Town of West Bloomfield based on age. In addition, an estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-22).

**Table AA-22. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	780	121	278

Historic losses are reported on a county-wide basis. Please see Section 11 of this Plan for additional information on historical and annualized losses for the entire planning area.

## ANNEX AA: TOWN OF WEST BLOOMFIELD

### LANDSLIDE

#### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the landslide hazard for all participating jurisdictions prone to landslides (Section 12). The entire planning area is primarily at low risk for potential landslides. However, the areas surrounding Honeoye Lake are at a slightly greater risk for landslides. According to the New York State Hazard Mitigation Plan, the entire population in the Town of West Bloomfield is at a low risk of incidence and low risk for landslide susceptibility (0-1.5%). Since 1996, the entire Ontario County planning area has had two reported incidents and no known damages due to landslides.

#### *PROBABILITY OF FUTURE EVENTS*

Based on available records of historic events there are no known historic events of landslide in the Town of West Bloomfield over the 27.5-year reporting period which provides a probability of one event every ten years or more. This frequency supports an “Unlikely” probability of future events for the Town of West Bloomfield.

#### *VULNERABILITY AND IMPACT*

According to the New York State Hazard Mitigation Plan, the entire population in the Ontario County planning area is at a low risk of incidence. The only known area slightly susceptible to landslide within the planning area is along the banks of the Honeoye Lake. There have been no known impacts to structures or infrastructure in the area due to landslide and there are no critical facilities located in the areas considered at slightly greater risk. The lack of historical events or impacts supports a “Limited” severity of impact meaning injuries and/or illnesses are treatable with first aid, shutdown of facilities and services for 24 hours or less, and less than 10 percent of property is destroyed or with major damage.



# ANNEX AA: TOWN OF WEST BLOOMFIELD

## LIGHTNING

### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the lightning hazard for each participating jurisdiction (Section 13). Lightning events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

### HISTORICAL OCCURRENCES

There have been no recorded lightning events in the Town of West Bloomfield from January 1996 through August 2023. The NCEI is a national data source organized under the National Oceanic and Atmospheric Administration and considered a reliable resource for hazards. However, historical lightning events have only been reported as independent events to the NCEI in recent years and remain widely underreported. The flash density for the planning area along with input from local team members was utilized in evaluating the jurisdiction’s risk. The flash density for the entire planning area indicates regular occurrences of lightning events that simply are not being reported.

### PROBABILITY OF FUTURE EVENTS

Based on historical records and input from the planning team the probability of occurrence for future lightning events in the Town of West Bloomfield is considered “Highly Likely”, or an event probable in the next year. The planning team stated that lightning occurs regularly in the area.

### VULNERABILITY AND IMPACT

The Town of West Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by lightning events. Lightning impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 13.

**Table AA-23. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

While all citizens are at risk to the impacts of lightning, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-24).

**Table AA-24. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	278

With no historical lightning events or losses, the impacts of lightning events can be considered “Limited” with injuries or illness treatable with first aid, critical facilities and services shut down for 24 hours or less, and less than 10 percent of property destroyed. Overall, the average losses anticipated for the Town of West Bloomfield due to lightning are considered negligible.

ANNEX AA: TOWN OF WEST BLOOMFIELD

Table AA-25. Potential Annualized Losses

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATE
Town of West Bloomfield	\$0	\$0

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## SNOW STORM

### *HAZARD DESCRIPTION, LOCATION, EXTENT, & HISTORICAL OCCURRENCES*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location, and extent of the snow storm hazard for each participating jurisdiction (Section 14). Snow storm events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area. For the purposes of evaluating this hazard, the following NCEI reporting categories are included under snow storm: blizzard, heavy snow, winter storm, and lake effect snow. Historical snow storm data for the County, including the Town of West Bloomfield, are provided on a county-wide basis per the NCEI database. Therefore, all historical events are listed in Section 14 of the Plan Update.

### *PROBABILITY OF FUTURE EVENTS*

According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect to experience a snow storm event approximately once every year. This frequency supports a “Highly Likely” probability of future events.

### *VULNERABILITY AND IMPACT*

While the entirety of the Ontario County planning area, including the Town of West Bloomfield, is exposed to snow storm events, existing buildings, infrastructure, and critical facilities are not likely to sustain significant damage from these events. However, the Town of West Bloomfield planning team members identified the following critical facilities (Table AA-26) as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by this hazard. Snow storm impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 14. The following critical facilities would be vulnerable to snow storm events in the Town of West Bloomfield:

**Table AA-26. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

The population over 65 in the Town of West Bloomfield is estimated at 29 percent of the Town’s total population and children under the age of 5 are estimated at 4 percent, or an estimated total of 901 potentially vulnerable residents in the Town of West Bloomfield based on age. In addition, an estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-27).

**Table AA-27. Populations at Greater Risk**

JURISDICTION	POPULATION 65 AND OLDER	POPULATION UNDER 5	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	780	121	278

Historic losses are reported on a county-wide basis. Please see Section 14 of this Plan for additional information on historical and annualized losses for the entire planning area.

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## TORNADO

### *HAZARD DESCRIPTION, LOCATION, & EXTENT*

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the tornado hazard for each participating jurisdiction (Section 15). The risk of a tornado is not confined to specific geographic boundaries and the risk of an event is considered similar for all participating jurisdictions throughout the planning area.

### *HISTORICAL OCCURRENCES*

According to the National Centers for Environmental Information (NCEI) Storm Events database, no tornado events are known to have impacted the Town of West Bloomfield. Historical tornado events are often provided on a countywide basis in the NCEI database, particularly when multiple smaller communities are impacted. Tornado events are not confined to specific geographic boundaries and risk is considered similar for all participating jurisdictions throughout the planning area.

### *PROBABILITY OF FUTURE EVENTS*

Historical tornado events are often reported on a county-wide basis, particularly when multiple smaller jurisdictions are impacted. While some incidents may be reported at the local municipal level, county level events provide a more robust risk assessment for each participating jurisdiction due to their similar geographic locations. According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect to experience a tornado event once every five years. Hence, the probability of a future tornado event affecting the Town of West Bloomfield is “Occasional”.

### *VULNERABILITY AND IMPACT*

The Town of West Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by tornado events. Tornado impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 15.

**Table AA-28. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 385 (30 percent of total housing stock) manufactured homes located in the Town of West Bloomfield. In addition, 51 percent (approximately 660 structures) of the housing structures in the Town of West Bloomfield were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant tornado events.

**Table AA-29. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of West Bloomfield	385	660

## ANNEX AA: TOWN OF WEST BLOOMFIELD

While all citizens are at risk to the impacts of a tornado event, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-30).

**Table AA-30. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	278

The total loss estimate due to tornado events is \$0 (in 2023 dollars), having an approximate average annual loss estimate of \$0. Based on historic damages and best available data the impact of a wind event on the Town of West Bloomfield would be considered “Limited”, with injuries and illness treatable with first aid, critical facilities and services shutdown for 24-hours or less and less than 10 percent of properties destroyed or with major damage.

**Table AA-31. Estimated Average Annual Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	AVERAGE ANNUAL LOSS ESTIMATES
Town of West Bloomfield	\$0	\$0

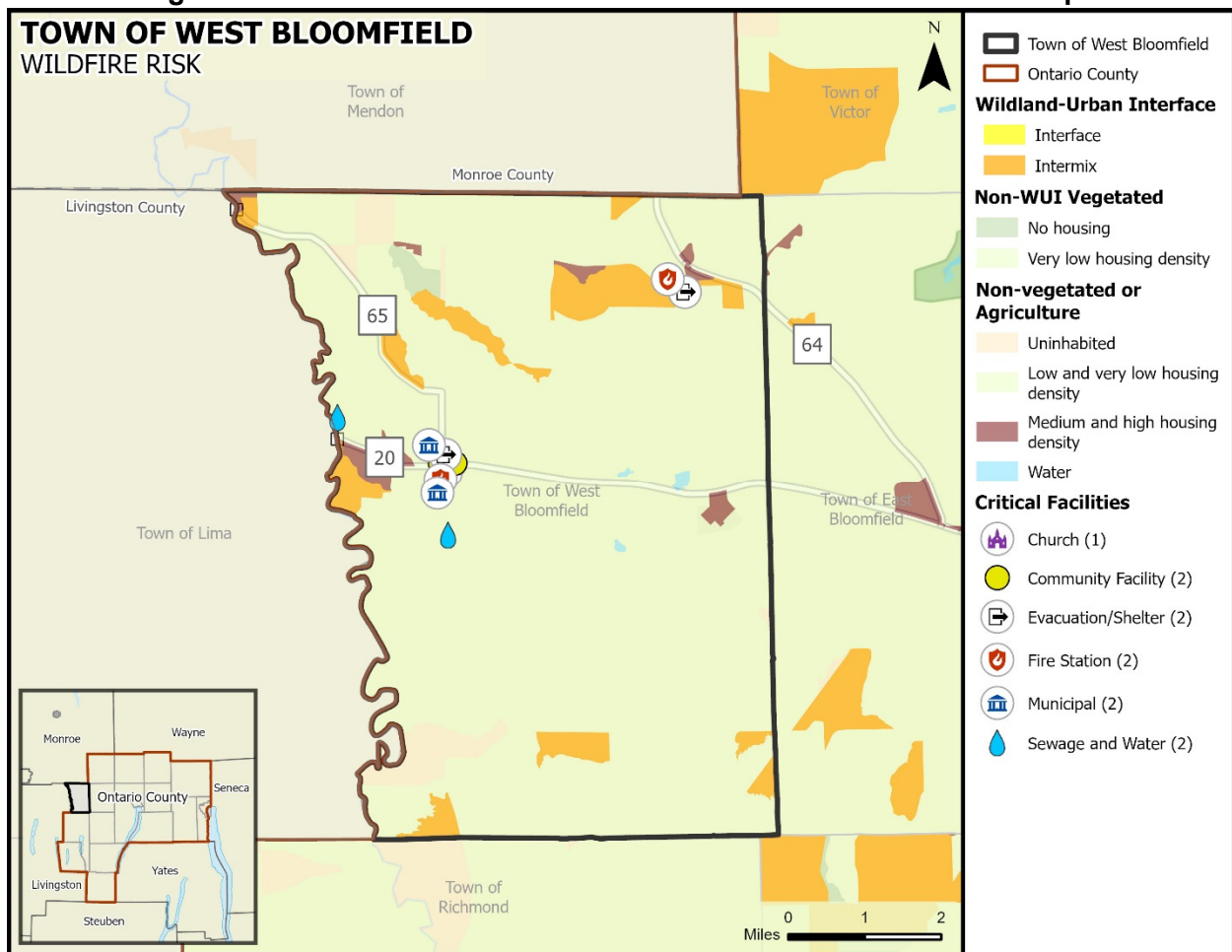
# ANNEX AA: TOWN OF WEST BLOOMFIELD

## WILDFIRE

### HAZARD DESCRIPTION, & LOCATION

The Ontario County Hazard Mitigation Plan Update provides a hazard description of the wildfire hazard for each participating jurisdiction (Section 16). A wildfire event can be a potentially damaging consequence of drought conditions, lightning, or wind event, if the conditions allow. Wildfires can vary greatly in terms of size, location, intensity, and duration. While wildfires are not confined to any specific geographic location, they are most likely to occur in open grasslands, highly vegetative areas, or along the forest floor, when conditions are favorable. The threat to people and property from a wildfire event is greater in the fringe areas where developed areas meet open grass lands, such as the Wildland Urban Interface (WUI). (Figure AA-4). The Town of West Bloomfield planning area is considered at low risk for wildfires with limited WUI areas.

**Figure AA-4. Town of West Bloomfield Wildland Urban Interface Map<sup>13</sup>**



The New York State Department of Environmental Conservation (NYS DEC), Division of Forest Protection regularly identifies Fire Danger Rating Area (FDRA) Risk across the state. Reviewing a combination of temperature, wind, relative humidity, fuel and/or drought conditions, the Division of Forest Protection issues color coded danger alerts. The entire planning area, including the

<sup>13</sup> Map sources: ESRI OpenStreetMap (Custom: no labels), Census TIGER/LINE (2022), Ontario County Information Technology Department (2023), USGS ScienceBase Catalog (2022)

## ANNEX AA: TOWN OF WEST BLOOMFIELD

Town of West Bloomfield, had a “Low” FDRA Risk rating as of October 2023 (Section 16, Figure 16-2).

### *EXTENT*

Risk for a wildfire event is measured in terms of magnitude and intensity using the Keetch Byram Drought Index (KBDI), a mathematical system for relating current and recent weather conditions to potential or expected fire behavior. The KBDI is available at the county level. The Ontario County Hazard Mitigation Plan Update provides KBDI levels and descriptions along with the range of historical KBDI levels for the planning area (Section 16).

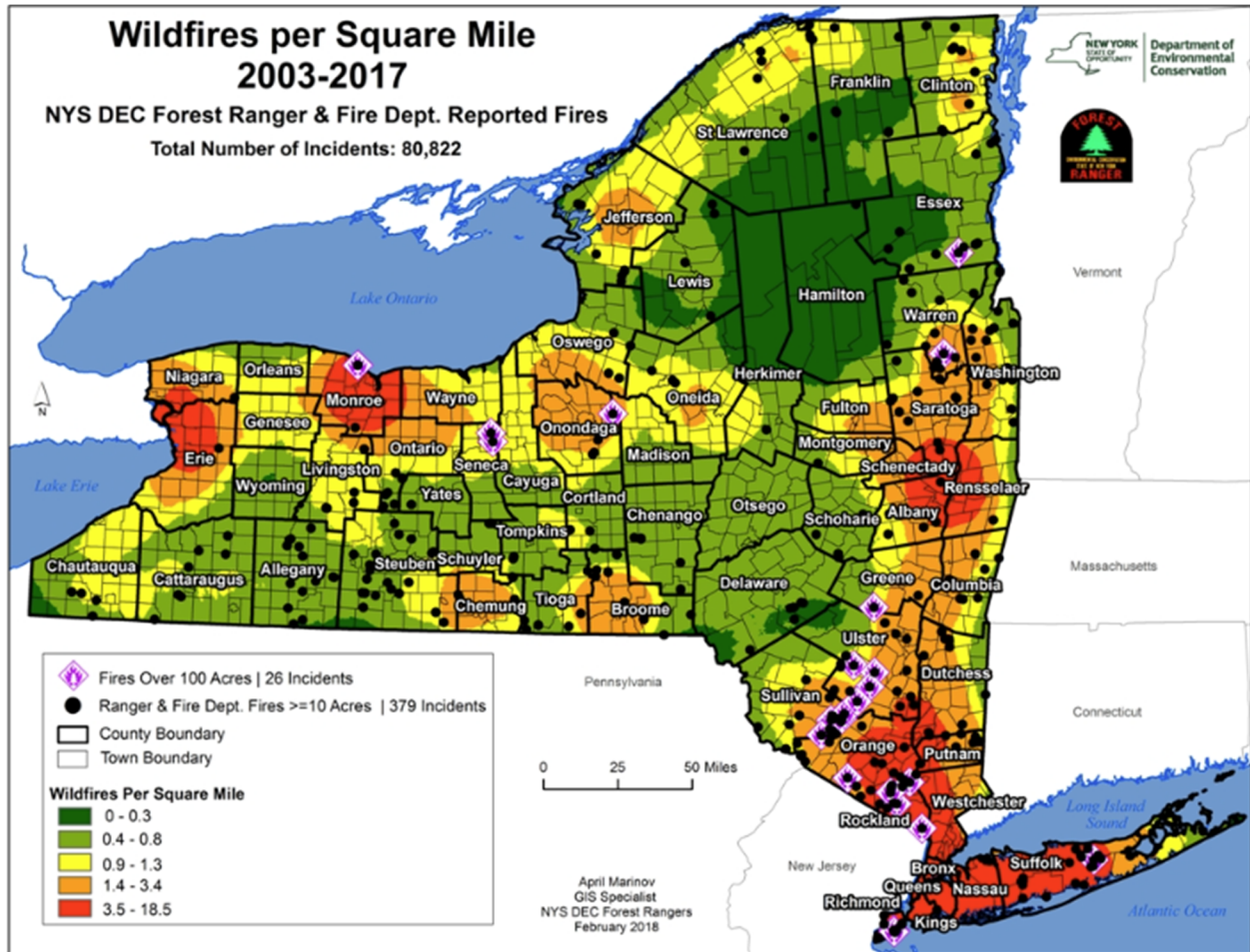
The average extent to be mitigated for the planning area is a KBDI of 200-300. At this level fires more readily burn and will carry across an area with no gaps. Heavier fuels will not readily ignite and burn. Expect smoldering and the resulting smoke to carry into and possibly through the night. Based on historical records and readily available fuel, the planning area can anticipate a KBDI range from 0 to 500. At the high end of this range fire intensity begins to significantly increase. Fires will readily burn in all directions exposing mineral soils in some locations. Larger fuels may burn or smolder for several days creating possible smoke and control problems.

The NYS DEC provides historical wildfire statistics from 2003 through 2017 (Figure AA-5). Detailed data on historic wildfires in the planning area, including damages, acres burned, fatalities, or injuries, was not available. There were no wildfires greater than 100 acres in Ontario County during that same period, but the southern portions of the County have experienced incidents greater than 10 acres. The Town of West Bloomfield planning area can anticipate limited future wildfire events, burning less than 10 acres.



# ANNEX AA: TOWN OF WEST BLOOMFIELD

Figure AA-5. Wildfires per Square Mile, 2003-2017



## HISTORICAL OCCURRENCES

Between 2003 and 2022 there were 1,553 wildfire events in Ontario County. These incidents are reported countywide. Most of the incidents (877) were brush or brush and grass mixture fires followed by natural vegetation (309), and grass fires (240). Based on data provided for historical wildfire events for the Ontario County planning area, 235 events have occurred since the 2018 Plan.

## PROBABILITY OF FUTURE EVENTS

With 1,553 events in a 19-year period, a wildfire event within the Ontario County planning area, including participating jurisdictions, is “Highly Likely” meaning an event is probable within the next year.

## VULNERABILITY AND IMPACT

The Town of West Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wildfire events. Wildfire impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 16.

ANNEX AA: TOWN OF WEST BLOOMFIELD

**Table AA-32. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

For the Town of West Bloomfield, the impact from a wildfire event can be considered “Limited”, meaning injuries and/or illnesses are treatable with first aid, complete shutdown of facilities and services for 24-hours or less and less than 10 percent of property is destroyed or with major damage. Severity of impact is gauged by acreage burned, homes and structures lost, injuries and fatalities.

## ANNEX AA: TOWN OF WEST BLOOMFIELD

### WIND

#### HAZARD DESCRIPTION, LOCATION, & EXTENT

The Ontario County Hazard Mitigation Plan Update provides a hazard description, location and extent of the wind hazard for each participating jurisdiction (Section 17). Wind events are not confined to specific geographic boundaries and are considered similar for all participating jurisdictions throughout the planning area.

#### HISTORICAL OCCURRENCES

Since 1956, five wind events are known to have occurred in the Town of West Bloomfield. Table AA-33 presents information on known historical events impacting the Town of West Bloomfield.

**Table AA-33. Historical Wind Events, 1956-2023<sup>14</sup>**

JURISDICTION	DATE	MAGNITUDE (knots)	DEATHS	INJURIES	PROPERTY DAMAGE	CROP DAMAGE
Town of West Bloomfield	6/23/2015	50	0	0	\$12,411	\$0
	8/8/2019	50	0	0	\$577	\$0
	8/8/2019	50	0	0	\$577	\$0
	6/21/2021	50	0	0	\$1,090	\$0
	6/21/2021	50	0	0	\$5,450	\$0
<b>TOTALS</b>		<b>(MAX EXTENT)</b>	<b>0</b>	<b>0</b>	<b>\$20,105</b>	<b>\$0</b>

Based on the list of historical wind events for the Town of West Bloomfield, four of the reported events have occurred since the 2018 Plan.

#### PROBABILITY OF FUTURE EVENTS

Historical wind events are often reported on a county-wide basis. While some incidents may be reported at the local municipal level, as indicated above, county level events provide a more robust risk assessment for each participating jurisdiction. According to historical records for the Ontario County planning area, the Town of West Bloomfield can expect to experience a wind event four to five times a year. This frequency supports a “Highly Likely” probability of future events.

#### VULNERABILITY AND IMPACT

The Town of West Bloomfield planning team members identified the following critical facilities as assets that are considered the most important to the planning area. These facilities are susceptible to a range of impacts caused by wind events. Wind impacts to critical facilities are similar across the entire planning area and are listed in detail in Section 17.

**Table AA-34. Critical Facilities at Risk**

JURISDICTION	CRITICAL FACILITIES
Town of West Bloomfield	1 Church, 2 Community Facilities, 2 Evacuation Shelters, 2 Fire Stations, 2 Municipal Buildings, 2 Sewage and Water Facilities, 1 Bridge

<sup>14</sup> Historical events are reported from January 1956 through August 2023. Magnitude is listed when available. Damage values are in 2023 dollars.

## ANNEX AA: TOWN OF WEST BLOOMFIELD

According to the American Community Survey (ACS) five-year estimates for 2021, a total of 385 (20 percent of total housing stock) manufactured homes located in the Town of West Bloomfield. In addition, 51 percent (approximately 660 structures) of the housing structures in the Town of West Bloomfield were built before 1980. These structures would typically be built to lower or less stringent construction standards than newer construction and may be more susceptible to damages during significant wind events.

**Table AA-35. Structures at Greater Risk**

JURISDICTION	MANUFACTURED HOMES	SFR STRUCTURES BUILT BEFORE 1980
Town of West Bloomfield	385	660

While all citizens are vulnerable to the impacts of wind events, forced relocation and disaster recovery drastically impacts low-income residents who lack the financial means to travel, afford a long-term stay away from home, and to rebuild or repair their homes. An estimated 10 percent of the Town of West Bloomfield’s population live below the poverty level (Table AA-36).

**Table AA-36. Populations at Greatest Risk**

JURISDICTION	POPULATION BELOW POVERTY LEVEL
Town of West Bloomfield	278

Impact of wind events experienced in the Town of West Bloomfield would be considered “Limited”, with injuries or illness treatable with first aid, less than 10 percent of property destroyed and critical facilities shut down for less than 24-hours. Over the 67.5-year reporting period there has been a total of \$20,105 damages (in 2023 dollars) in the Town of West Bloomfield due to wind events. The estimated average annual loss from a wind event is \$298.

**Table AA-37. Estimated Annualized Losses**

JURISDICTION	TOTAL PROPERTY & CROP LOSS	ANNUAL LOSS ESTIMATES
Town of West Bloomfield	\$20,105	\$298

### CLIMATE CHANGE CONSIDERATIONS

The Ontario County Hazard Mitigation Plan Update provides climate change considerations for all natural hazards for the entire planning area as climate change impacts are considered similar across all participating jurisdictions in Ontario County unless otherwise stated. Please see Sections 5 through 17 of this Plan Update for additional information on climate change considerations by hazard.

### HUMAN-CAUSED HAZARDS

The Ontario County Hazard Mitigation Plan Update provides a detailed hazard profile for human-caused hazards including fire, hazardous materials, infestation, terrorism, utility failure, and water supply contamination. Information for these hazards is limited and typically reported at the county level. As such, the evaluation of human-caused hazards is considered similar for all jurisdictions in the Ontario County planning area. Please see Sections 18 through 23 of this Plan Update for additional information on human-caused hazards evaluated for this plan.

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## PREVIOUS MITIGATION ACTIONS

<b>Previous Action Worksheet</b>	
<b>TWB-1: Utility Wire Tree Maintenance Program</b>	
<b>Name of Jurisdiction:</b>	Town of West Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	tree maintenance is a priority - Highway Superintendent is working on plan but needs assistance, implementation of the plan will be needed.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Coordination with State and County for utilization of service providers. Annual maintenance plan. Maintenance in non-Town owned cemeteries—Preventative and to minimize possibility of Town having to take ownership.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TWB-1: Utility wire tree maintenance program
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	Maintain clearing of overhead lines to minimize possibility of outage
<b>Summary of Evaluation Benefits (losses avoided):</b>	Cost is based on whether Town continues use of East Bloomfield bucket truck or purchases its own. Labor – staff time
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Highway Department
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	Ongoing
<b>Potential Fund Sources:</b>	Staff budget
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Highway Operations Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update. In-progress.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	

ANNEX AA: TOWN OF WEST BLOOMFIELD

<b>Previous Action Worksheet</b>	
<b>TWB-2: Fire Department/EMS Radio Interoperability</b>	
<b>Name of Jurisdiction:</b>	Town of West Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Fire risk - better coordination is needed between three departments that serve the town, as well as EMS coverage.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Migrate to same radio system? Migration to HFMVA as primary instead of FLA?
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b> <b>Name of Action or Project:</b>	TWB-2: Radio Interoperability
<b>Action or Project Description:</b>	Migrate two (Ionia and WB VFD's) to Ontario County system, integrate with HFMVA
<b>Summary of Evaluation Benefits (losses avoided):</b> <b>Estimated Cost:</b> <b>Other Factors Considered:</b>	Better coordination during disaster response \$20,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Ontario County Planning
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	SAFER
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	N/A
<b>2024 Analysis</b>	
<b>Date of Status Report:</b> <b>Report of Progress:</b> <b>Evaluation of Effectiveness:</b>	Defer to Plan Update.

## ANNEX AA: TOWN OF WEST BLOOMFIELD

<b>Previous Action Worksheet</b>	
<b>TWB-3: Town Hall Backup/Standby Power</b>	
<b>Name of Jurisdiction:</b>	Town of West Bloomfield
<b>Name of Haz. Mit. Plan:</b>	Ontario County Multi-Jurisdictional Hazard Mitigation Plan – 2015
<b>Risk / Vulnerability</b>	
<b>Problem being Mitigated:</b>	Utility failure risk (including failure during other hazard events) - need to develop program to supply standby power for critical service areas during a hazard event.
<b>Potential Actions/Projects (not being Implemented at this time)</b>	
<b>Actions/Projects Considered with Summary Evaluation of Each:</b>	Provide standby power system at Town Hall/requires update to Town Hall.
<b>Action or Project Intended for Implementation</b>	
<b>Action/Project Number:</b>	TWB-3
<b>Name of Action or Project:</b>	
<b>Action or Project Description:</b>	New Town Hall w/adequate standby power, or creating adequate standby power at existing facility
<b>Summary of Evaluation Benefits (losses avoided):</b>	Continuity of Operations, better response, and safety during disasters. Limit flood and other environmental damage by keeping sump pumps, heaters, etc. running during flood events.
<b>Estimated Cost:</b>	
<b>Other Factors Considered:</b>	
	\$750,000
<b>Plan for Implementation</b>	
<b>Responsible Organization:</b>	Town Board
<b>Action/Project Priority:</b>	Medium
<b>Timeline for Completion:</b>	2023
<b>Potential Fund Sources:</b>	Town bonds
<b>Local Planning Mechanisms to be Used in Implementation, if any:</b>	Town Comprehensive Plan
<b>2024 Analysis</b>	
<b>Date of Status Report:</b>	Defer to Plan Update.
<b>Report of Progress:</b>	
<b>Evaluation of Effectiveness:</b>	



# ANNEX AA: TOWN OF WEST BLOOMFIELD

## NEW MITIGATION ACTIONS

TOWN OF WEST BLOOMFIELD PROPOSED PROJECTS													
*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.													
Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
1	4.2	Flood	Boughton Park Dam (Fairport Reservoir) Repair Phase Project: Since the dams were initially built, there has been settling of the dam now causing downstream flooding impacts and concerns that the structure is potentially compromised.	Dam repair/compliance of the east and west dams at Boughton Park in the Town of East Bloomfield but would affect the Town of Victor.	No	Further review required	12-60 months	Town Board, in conjunction with Town of East and West Bloomfield	\$4,258,705	Improve risk assessment; Reduce risk of damage or injuries through drainage improvements; Reduce risk of damages and injuries.	Local Department Budget; Grant submitted to DHSES/FE MA	H	Safety/Security
2	3.3	Drought, Flood, Hail, Landslide, Snow Storm, Tornado, Wildfire, Wind	Code Enforcement: There is a code enforcement officer shortage throughout the county. and those smaller jurisdictions may need to evaluate and update coding to follow the County (who will potentially take lead if position is vacant)	If applicable, need to evaluate and update coding to follow the County.	No	N/A	As needed	Town Board	Staff Time	Ensures compliance to current code and restrictions. Reduce damages to structures and infrastructure; Reduce risk of injuries or fatalities.	Local Department Budget	L	Communication
3	1.4	Extreme Cold, Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility	Generator at critical facilities: During power outages, the Town Hall facility would be without lights, communications, and maintenance equipment/machinery. The operations are basically brought to a halt. This project helps ensure critical facilities continue to provide services during a power outage caused by unforeseen events.	Acquire and install a permanent generator at both critical facilities: New Town Hall	Yes	Further review required	24 months	Town Board and Public Works	\$750,000	Provide power for critical facilities during power outages and ensure continuity of critical services.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	H	Energy (Power/Fuel)

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## TOWN OF WEST BLOOMFIELD PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
		Failure											
4	2.3	Extreme Heat, Flood, Hail, Ice Storm, Lightning, Snow Storm, Tornado, Wildfire, Wind, and Utility Failure	Tree Trimming Annual Maintenance Program: Tree maintenance is a priority to due utility wires. A plan will need to be developed and implemented. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Adopt and implement a routine tree trimming program that clears tree limbs near power lines and/or hanging in right-of-way; Remove dead trees from right-of way and drainage systems on a scheduled basis.	No	N/A	12 months	Town Highway Department, in coordination with Coordination with State and County for utilization of service provider	Staff Time \$50,000 (annually)	Reduce damages to infrastructure; Ensure continuity of services during and after event; Reduce damages associated with power outages; Reduce risk of injuries or fatalities to vulnerable populations.	Local Department Budget, Staff time	M	Safety/Security
5	1.2	Flood, Hail, Ice Storm, Landslide, Lightning, Snow Storm, Tornado, Wildfire, Wind, Fire, HazMat	EMS Radio Interoperability: Better coordination is needed between the three fire departments that serve the town, as well as EMS coverage. This project promotes public safety.	Enhance communication systems. Explore Migrate two (Ionia and WB VFD's) to Ontario County system, integrate with HFMVA	No	N/A	24 months	Town Board, Local Fire Departments/EMS, and Ontario County Planning Department	\$50,000 - \$100,000	Reduce risk to residents through improved communications and early warning. Enhances emergency response.	Local Department Budget; HMGP, BRIC, CDBG, PA 406 (when applicable) local bonds	M	Communication, Safety/Security
6	3.1	Extreme Heat, Drought	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme heat and drought to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include heat advisory warning alerts,	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Promote hazard awareness and protect residents from potential injuries and damages.	Local Department Budget, Staff time	M	Communication

# ANNEX AA: TOWN OF WEST BLOOMFIELD

TOWN OF WEST BLOOMFIELD PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				water conservation techniques, etc.									
7	3.1	Extreme Cold, Ice Storm, Snow Storm	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of extreme cold, ice storms and snowstorms to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identifying warming stations, install warning signs at hazardous bridges and roadways subject to ice, mitigation measures to prevent frozen pipes ways, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
8	3.1	Hail, Tornado, Wind	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of hail, tornado, and wind to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include harden/retrofitting structures, tree	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## TOWN OF WEST BLOOMFIELD PROPOSED PROJECTS

\*Projects related to Critical Facilities (CF) will protect the facility to the 500-year event or worst damage scenario, whichever is greater.

Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				removal/branch maintenance, covered parking, etc.									
9	3.1	Lightning	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of lightning to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include installation of surge protectors, tree removal/branch maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
10	3.1	Wildfire	Public Awareness Program: The general public may not have a full understanding of the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	Prepare tips for avoiding impacts of wildfire to be disseminated via press release, social media to educate citizens of hazards that can threaten the area and mitigation measures to reduce injuries, fatalities, and property damages. This can include identification of high-risk areas, creating defensive space, brush/debris maintenance, etc.	No	N/A	12 months	Town Board, Ontario County Emergency Management	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	M	Communication
11	3.1	Landslide	Public Awareness Program: The general public may not have a full understanding of	Educate property owners, elected officials, and planning and zoning	No	N/A	36 months	Town Board in conjunction with Ontario	Staff Time	Reduce risk to citizens by educating the public on how to	Local Department Budget,	L	Communication

# ANNEX AA: TOWN OF WEST BLOOMFIELD

TOWN OF WEST BLOOMFIELD PROPOSED PROJECTS													
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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
			the risk associated with hazards impacting the planning area. Education programs can provide life safety benefits to residents in the area and provide information on mitigation measures residents can employ to reduce damages to their property.	decision-makers about landslide risks and best management and development practices to minimize risk/damage, which can include: avoid building near steep slopes, close to cliffs, near drainage ways, or stream channels, planting ground cover on slopes; build channels or deflection walls to direct the flow around buildings, installation of flexible pipe fittings to avoid gas or water leaks, and/or use of sandbags, retaining walls or k-rails (Jersey barriers).				County Planning and Soil and Water Conservation district		prepare for hazards and disasters.	Staff time		
12	3.1	Infestation	Invasive Species: Ontario County is at risk of being infested with invasive species which could cause great economic hardship to the community and storm water management.	Secure funding for education and best management practices to reduce damage from invasive species on county-wide own properties and private own properties. Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires	No	N/A	36 months	Town Board, Ontario County Soil and Water Conservation District and Cooperative Extension	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Department Budget, Staff time	L	Communication
13	3.1	Fire, HazMat	Public Awareness Program: The general public may not be aware of the risk fire and hazardous material releases as it related to the County.	Work with local fire departments and volunteer fire departments on ways to protect residents and the community from the effects of structural fires	No	N/A	36-60 months	Town Board, in conjunction with Local Fire Departments	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## TOWN OF WEST BLOOMFIELD PROPOSED PROJECTS

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
				and hazardous material releases. This can include monitoring home fire alarms/carbon monoxide alerts, fire extinguishers in home, proper safety tips, etc. Work with county and local departments to better protect critical infrastructure from potential domestic or foreign terrorism. Educate the public on what to do if they have concerns on a potential threat.									
14	3.1	Terrorism	Public Awareness Program: The general public may not be aware of the risk of potential domestic terrorism that could impact the County.	Work with local utility providers to educate the public on ways to enhance utility operations through sending out notification to service customers by mail or paperless enrollment.	No	N/A	36-60 months	Town Board, in conjunction with Local Police Department	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
15	3.1	Utility Failure	Public Awareness Program: The effects of utility failure no related to hazard events has caused power outages and inability for critical services to remain operational, effecting operations	Work with local water districts on educating the public of what they can do to prevent water contamination and/or damage to water infrastructure, such as clearing out drains, better protection of critical infrastructure throughout the community, etc.	No	N/A	36-60 months	Town Board, in conjunction with local utility providers	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication
16	3.1	Water Supply Contamination	Public Awareness Program: The effects of water contamination has been experienced throughout the County.		No	N/A	36-60 months	Town Board, in conjunction with water districts	Staff Time	Reduce risk to citizens by educating the public on how to prepare for hazards and disasters.	Local Budget	L	Communication

# ANNEX AA: TOWN OF WEST BLOOMFIELD

## TOWN OF WEST BLOOMFIELD PROPOSED PROJECTS

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Project #	Goal / Objective being Met	Hazard to be Mitigated	Project Name and Description of the Problem	Description of the Solution	CF?*	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Community Lifeline
17	4.1	Flood	Flood Zone Outreach Program: Recent developments have occurred near flood zones and some future development is anticipated near or within flood zones. This project protects infrastructure, reduces cost of reparation, and prevents injury to residents.	Once new FEMA maps are available, create a flood zone brochure for homeowners within flood zones to ensure they are in proper regulations.	No	N/A	12 months	Town Planning Department	Staff Time	Reduces risk of flood damages to high-risk structures and prevent future losses in high-risk flood hazard areas; Reduce risk of injuries to citizens; Reduce burden on emergency services during and after a flood event.	Local Department Budget, Staff time	M	Communication



# ANNEX AA: TOWN OF WEST BLOOMFIELD

## CAPABILITY ASSESSMENT

COMMUNITY CAPABILITY CHECKLIST	Town of West Bloomfield
<b>PLANS</b>	
Capital Improvements Plan	
Climate Change Adaptation Plan	
Comprehensive/Master/Land Use Plan	X
Community Wildfire Protection Plan	
Continuity of Operations	X
Drought Contingency Plan	
Economic Development Plan	
Emergency Management Action Plan	X
Emergency Operations Plan	
Emergency Response Plan and Pandemic Plan Annex	
Extreme Heat Plan/Protocol	
Evacuation Plan	
Floodplain Management Plan	
Hazard Mitigation Plan	X
Local Waterfront Revitalization Plan	
Natural Resource Conservation Plan	
Open Space Plan	X
Stormwater Management Plan	
Transportation Plan	
Watershed Protection Plan	
<b>POLICIES/ORDINANCES</b>	
Building Codes	X
Construction Site Stormwater Runoff Control	X
Post-Construction Stormwater Management in New Development and Redevelopment	
Critical Infrastructure Protection	

## ANNEX AA: TOWN OF WEST BLOOMFIELD

COMMUNITY CAPABILITY CHECKLIST	Town of West Bloomfield
Fire Codes	X
Floodplain Ordinance	X
Illicit Discharge Detection and Elimination	X
Local Environmental Review	X
Local Wetland Regulations	X
Public Maintenance of Streets, Bridges, other	X
Regulation of Invasive Species	
Regulation for Prevention of Water Contamination	X
Regulation for Unsafe/Defective Structures	X
Sediment and Erosion Control Measures	X
Site Plan Review Requirements	X
Steep Slope Ordinance	X
Stream Buffer Ordinance	X
Stormwater/ Drainage Ordinance	X
Subdivision Regulations	X
Timber Harvesting Regulations	
Tree Protection or Landscaping Ordinance	X
Use of Pollutants: Road Salt Use, Fertilizers, Pesticides, etc.	
Wildfire Ordinance	
Winter Road Maintenance	X
Zoning Ordinance/Land Use Restrictions	X
Additional Hazard-Related Regulations or Plans	X
PROGRAMS	
Firewise Communities	
Floodplain Maps/Flood Insurance Studies	
Hydrologic/ Hydraulic Studies	
Mutual Aid Agreement	X

## ANNEX AA: TOWN OF WEST BLOOMFIELD

COMMUNITY CAPABILITY CHECKLIST	Town of West Bloomfield
National Flood Insurance Program Participant	X
NFIP Community Rating System Participant	
Property Acquisition Program	
Public Education/ Awareness Programs	
Stream Maintenance Program	
Storm Drainage Systems Maintenance Program	
StormReady Communities	
Warning Systems/ Services	
STAFF / DEPARTMENTS	
Building Code Official	X
Emergency Manager	
Engineer/Public Works Official	
Environmental Conservation Specialist	
Floodplain Administrator	X
GIS Specialist	
Personnel with Hazard Knowledge	
Planners	
Public Information Official	
Resource Development/ Grant Writer	