

Jurisdictional Annex

Town of Fowler

1. Contacts

The contacts for the Town of Fowler regarding this plan are identified as follows:

- Ricky W. Newvine – Town Supervisor
Address: 87 Little York Road, Gouverneur, NY 13642
Phone: (315) 287-4098
Email: newvinesnapa@yahoo.com

Town Website: <https://www.fowlerny.com/>

2. Municipal Profile

2.1 Population

The 2020 Census reported that 2,142 people live in the Town of Fowler. The Town's population has decreased by 2.7% since the 2010 Census (2,202) (U.S. Census Bureau, 2021).

2.2 Location

The Town of Fowler is located along the western border of St. Lawrence County and is bordered by the Towns of Gouverneur and Hermon to the north, Edwards to the east, Pitcairn and Diana (Lewis County), and Antwerp (Jefferson County) to the south, and Rossie to the west.

2.3 Governing Body

The Town of Fowler is governed by a five-member Town Board, including the Supervisor and four board members.

2.4 Recent and Anticipated Future Development

Since the last County HMP (2015), two new houses were constructed on Burns Road, one in 2020 and the other in 2021. An orchard was developed on Burns Road in 2021. A pavilion was constructed at Town Hall in 2021. Lastly, a

playground was constructed at the Town Hall in 2017. No new development has occurred in the Special Flood Hazard Area, and the reported developments have not changed the Town's vulnerability to natural hazards.

3. Capability Assessment

3.1 Planning and Regulatory Capability

The Town has considered the 2015 HMP when implementing their existing plans and regulations and progressing projects. The Town's HMP update will be incorporated into and referenced by future updates of the plans, policies, ordinances, programs, studies, and reports listed in Table 1, below.

Table 1. Planning Mechanisms and Capabilities		
Planning Mechanism	Town of Fowler	Notes
Plans		
Comprehensive Plan	No	
Capital Improvement Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	Yes	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection	No	
Pandemic Response Plan	Yes	Developed in response to COVID-19 pandemic (required by NYS)
Other Special Plans	No	
Development Approvals		
Building Code	<ul style="list-style-type: none"> • 2020 Residential Code of NYS • 2020 Fire Code of NYS • 2020 Building Code of NYS • 2020 Existing Building Code of NYS • 2020 Energy Conservation Construction Code of NYS • 2020 Plumbing Code of NYS • 2020 Mechanical Code of NYS • 2020 Fuel Gas Code of NYS 	Town Code Enforcement Officer responsible
Building Code Effectiveness Grading Schedule (BCEGS) Score	No	
Fire department ISO rating	No	
Site plan review requirements	Yes	In place

Table 1. Planning Mechanisms and Capabilities		
Planning Mechanism	Town of Fowler	Notes
Land Use Regulations		
Zoning ordinance	No	
Subdivision ordinance	Yes	
NFIP Participant/Floodplain ordinance	No	
Natural hazard specific ordinance	No	
Flood insurance rate maps	No	
Acquisition of land for open space and public recreation	No	
Other	Yes	Town has Land Use regulations in place but no Zoning ordinance.
Administration		
Planning Commission	Yes	
Mitigation Planning Committee	Yes	
Maintenance programs to reduce risk	Yes	
Mutual aid agreements	Yes	With County and (T) Rossie and Edwards
Staff		
Chief Building Official	Yes	Code Enforcement Officer
Floodplain Administrator	Yes	Code Enforcement Officer
Emergency Manager	Yes	Town Supervisor and Town Clerk
Community Planner	No	
Civil Engineer	No	
GIS Coordinator	No	No agreement with DANC
Technical Abilities		
Warning systems/services	Yes	Website and social media
Hazard data and information	Yes	Documented for HMP update
Grant writing	Yes	Work with Lewis County
HAZUS analysis	Yes	Completed countywide for HMP update
Funding Resources		
Capital improvements project funding	Yes	
Authority to levy taxes for specific purposes	Yes	
Fees for water, sewer, gas, or electric services	No	
Impact fees for new development	No	
Storm water utility fee	No	

Table 1. Planning Mechanisms and Capabilities		
Planning Mechanism	Town of Fowler	Notes
Incur debt through general obligation bonds and/or special tax bonds	Yes	Highway Department
Incur debt through private activities	No	
Community Development Block Grant	Yes	
Other federal funding programs	Yes	USDA Rural Development
State funding programs	Yes	
Programs/Organizations		
Local citizen groups or non-profit organizations focused on environmental protection emergency preparedness, access and functional needs	No	
Ongoing public education or information program	Yes	Program in place
Natural disaster or safety related school programs	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public-private partnership initiatives addressing disaster-related issues	Yes	Seniors Program – meal delivery (82 families); Home Assistance Program – grocery assistance for residents (funded by donations);

3.2 Emergency Communications, Routes, and Shelters

Major transportation routes within the Town include State Highway 812, State Highway 58, and County Routes 22 and 24. The Town's emergency shelter locations are summarized in Table 2, below. In addition to the Town's pet sheltering capabilities, the St. Lawrence County Animal Response Team (CART) is a volunteer group that can assist with coordinating animal sheltering needs during emergencies.

Table 2. Emergency Shelters						
Facility	Address	Owner/ Occupant	Support medical needs?	ADA Compliant?	Pets accepted?	Notes
Town Hall (Command Center)	87 Little York Road, Gouverneur, NY 13642	Town of Fowler	Yes	Yes	No	Backup power available
BOCES Southwest Career & Technical Education Center	3606 State Highway 58 Gouverneur, NY 13642	St. Lawrence-Lewis BOCES	Yes	Yes	Yes	Backup power available

3.3 Temporary and Permanent Housing Locations

The potential temporary and permanent housing locations listed below were identified for displaced residents in the Town of Fowler based on the 2017 NYS Hazard Mitigation Planning Standards. It is noted that formal agreements would need to be established in order to use privately-owned properties.

- **Potential Temporary Housing Locations**
 - Rod and Gun Club property
 - Town Hall and Ball Diamond/Park - 87 Little York Rd, Gouverneur, NY 13642
 - Town storage facility on Sullivan Rd
- **Potential Permanent Housing Locations**
 - Privately owned vacant properties in Town, if owners were willing to sell or subdivide

4. Hazard Vulnerabilities and Ranking

4.1 Risk Assessment

The Town reviewed multiple natural hazards to include in the HMP update. The hazard analysis criteria is summarized in Table 3. The Town's natural hazard analysis results are provided in Table 4.

Table 3. Hazard Analysis Criteria						
Score	Extent	Onset	Impact	Frequency	Total Score	Overall Vulnerability
1	One location	Days of warning	Minor damages/injuries	Rare	4 to 5	Low
2	Several locations	Hours of warning	Moderate damages/injuries	Infrequent	6 to 8	Moderate
3	Large area	No warning	Severe damages/injuries	Regular	9 to 12	High

Table 4. Hazard Vulnerability by Event						
Hazard Event	Extent	Onset	Impact (Damages and Injury)	Frequency	Overall Vulnerability	Jurisdiction Rank
Severe Thunderstorm, Wind, Hail, or Tornado	2	2	3	3	High	1
Ice Storm	3	1	3	2	High	2
Severe Winter Storm	3	1	2	3	High	3
Coastal Storm (Nor'easter)	3	1	2	2	Moderate	4
Flood	2	2	2	2	Moderate	5
Ice Jam	2	2	2	2	Moderate	6
Wildfire	2	3	1	2	Moderate	7
Extreme Temperatures	3	1	1	2	Moderate	8
Drought	3	1	2	1	Moderate	9
Earthquake	2	3	1	1	Moderate	10
Landslide	1	3	1	1	Moderate	11
Infestation	2	1	1	1	Low	12

4.2 Critical Facilities

Critical facilities are defined as any facility that is critical for emergency response or that requires special emergency response in the event of hazardous incidents

as identified by the Town of Fowler. Table 5, below, denotes the types and locations of critical facilities within the Town.

Table 5. Critical Facilities			
Type	Facility Name	Address	Located in Floodplain*
Community Services	Town Beach on Sylvia Lake	Pumphouse Rd	No
Educational Facilities	BOCES Southwest Technical Education Center	3606 NY-58, Gouverneur, NY 13642	No
Municipal Services	Highway Department	87 Little York Rd, Gouverneur, NY 13642	No
Municipal Services	Town Hall (new pavilion next to playground)	87 Little York Rd, Gouverneur, NY 13642	No
State Facility	NYS DOT Facility	Country Club Rd, Fowler, New York 13642	No
*Based on HAZUS-modeled 100-year and 500-year floodplains			

FEMA's High Hazard Potential Dam (HHPD) grant program offers funding assistance for dam rehabilitation projects. Dams may be owned by public or private entities, and must be classified as high-hazard potential and have an emergency action plan (EAP) in place. Federally-owned dams, dams built under the authority of the Secretary of Agriculture, and hydroelectric dams licensed by the Federal Energy Regulatory Commission (FERC) with an authorized capacity of more than 1.5 megawatts are not eligible for the 2021 funding program. In New York State, municipalities and non-profit organizations may apply for funding as sub-applicants to the NYSDEC. Municipalities must have an approved hazard mitigation plan to be eligible for HHPD funding. According to the NYSDEC, there are 36 intermediate or high-hazard potential dams (Class B or C) in St. Lawrence County. These dams are shown on Figure 5.8, in Appendix A of the main body of the plan. Four of these dams are located in the Town of Fowler, and all are hydropower dams. (Table 6, below).

Table 6. Intermediate and High-Hazard Potential Dams (NYSDEC, 2021)						
Dam Name	Hazard Classification*	Waterbody	Owner	Total Capacity (megawatts)**	Emergency Action Plan Date	Last NYSDEC Inspection
Emeryville Dam	B	Oswegatchie River	KE Emeryville, LLC	3.4	12/16/1988	7/26/2002
Hailesboro #4 Plant Dam	B	Oswegatchie River	Hydro Development Group Incorporated	1.4	4/27/1995	6/15/1995
Hailesboro Mill #6 Dam	B	Oswegatchie River	ENEL - Engineering and Regulatory Affairs	Not available	No EAP on File	7/15/2008

Table 6. Intermediate and High-Hazard Potential Dams (NYSDEC, 2021)						
Dam Name	Hazard Classification*	Waterbody	Owner	Total Capacity (megawatts)**	Emergency Action Plan Date	Last NYSDEC Inspection
Hailsboro Mill #3 Dam	B	Oswegatchie River	ENEL Green Power North America Inc.	Not available	No EAP on File	7/15/2008
*Both Class B (Intermediate Hazard) and Class C (High Hazard) dams were reviewed for risk assessment purposes.						
**Capacity information obtained from Natural Resources Canada, 2021						

The Town did not indicate any specific concerns regarding the dams. Dam and flood-related mitigation actions that may apply to the HHPD grant program are detailed in Section 7, below. The Town and Dam owners will continue to comply with the NYSDEC dam safety program to minimize risk associated with these structures.

5. Priority Hazard Events

The following sections detail the priority hazard events identified by the jurisdiction. Additional information about each hazard including frequency, history, and severity within St. Lawrence County is included within Section 5.0 of the main body of the Hazard Mitigation Plan.

The probability of climate-related hazard events is expected to increase in the future within the Town of Fowler. Climate change is expected to cause an increase in weather volatility, rising sea level, and greater temperature extremes. Properties along the Oswegatchie River and its tributaries, are likely to experience increased flooding occurrences.

Past occurrences of hazard events are indicated in their respective profiles below. Some hazards may not have historical records, but they were included in this annex for future mitigation planning consideration.

5.1 Severe Thunderstorm, Wind, Hail, or Tornado

5.1.1 *Description*

For a description of these hazards, please see Section 5.1 of the main body of the plan.

5.1.2 *Hazard Vulnerability*

The Town is highly vulnerable to a severe thunderstorm, wind, hail, or tornado event, as documented in their hazard analysis in Section 4.1. The entire Town is susceptible to damages from a severe thunderstorm, wind, hail, or tornado. Fallen trees from severe winds can damage overhead utility lines, resulting in power outages. In addition, these events are likely to result in damages to private and public infrastructure and property. Damages to the Town's critical infrastructure or primary evacuation routes (State Highways 812 and 58 and County Routes 22 and 24) would be most impactful to Town residents. Storm events would primarily impact the more populated portions of the Town, including the hamlets of Fowler and Hailesboro.

5.1.3 Historical Hazard Occurrences and Damage Estimates

The NCDC reported 180 severe storm events in St. Lawrence County between 2010 and 2021. One of these events occurred in the Town of Fowler. The event was a thunderstorm wind that resulted in approximately \$5,000 of property damages in the Town (Table 7). Actual damages were likely greater than those estimated by the NCDC. Severe storms occur about once a year to every two years in the Town (not all events are reported by NCDC). The NCDC reports no tornadoes for St. Lawrence County since 2010.

Table 7. Severe Storm Event Records for the Town of Fowler				
Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Thunderstorm Wind	6/8/2011	55 knots	\$5,000.00	None reported

5.1.4 Future Potential Impacts

Severe storms will continue to affect the Town in the future. The frequency and magnitude of severe storm events may increase due to climate change.

5.2 Ice Storm

5.2.1 Description

For a description of this hazard, please see Section 5.2 of the main body of the plan.

5.2.2 Hazard Vulnerability

The Town is highly vulnerable to an ice storm, as documented in their hazard analysis in Section 4.1. These storms typically affect most or all of the County. The entire Town of Fowler is susceptible to damages from an ice storm event. Damages to the Town's critical infrastructure or primary evacuation routes (State Highways 812 and 58 and County Routes 22 and 24) would be most impactful to Town residents. Storm events would primarily impact the more populated portions of the Town, including the hamlets of Fowler and Hailesboro.

5.2.3 Historical Hazard Occurrences and Damage Estimates

Historically, ice storms have occurred about once every three years in St. Lawrence County. Since 1998, three ice storms were reported in the portion of St. Lawrence County where the Town of Fowler lies, and are described in Section 5.2 of the main body of the plan. No damage estimates related to ice storms are reported specific to the Town of Fowler.

5.2.4 Future Potential Impacts

The Town of Fowler will continue to experience ice storm events in the future, as will the rest of St. Lawrence County. The Town Highway Dept. completes tree maintenance within Town road right of ways to minimize potential damages to overhead utility lines, which is common during ice storms. Private utility right of ways are generally maintained by the individual utility companies.

5.3 Severe Winter Storm

5.3.1 Description

For a description of this hazard, please see Section 5.3 of the main body of the plan.

5.3.2 Hazard Vulnerability

The Town is highly vulnerable to a severe winter storm, as documented in their hazard analysis in Section 4.1. These storms typically affect more than one town within the County. The entire Town of Fowler is susceptible to damages from a severe winter storm event. The Town Highway Dept. clears Town streets during heavy snow events, and the Town works with the St. Lawrence County Highway Dept. and NYS Dept. of Transportation for clearing of other roadways. Roadway safety is a major concern during severe winter storm events. Damages to the Town's critical infrastructure or primary evacuation routes (State Highways 812 and 58 and County Routes 22 and 24) would be most impactful to Town residents. Storm events would primarily impact the more populated portions of the Town, including the hamlets of Fowler and Hailesboro.

5.3.3 *Historical Hazard Occurrences and Damage Estimates*

Severe winter storms typically occur about sixteen times annually in St. Lawrence County. The Town of Fowler has been affected by a number of severe winter storm events, described in Section 5.3 of the main body of the plan. These storms typically affect more than one town within the County. The NCDC does not report any winter storm damage estimates specific to the Town of Fowler.

5.3.4 *Future Potential Impacts*

The Town of Fowler will continue to experience severe winter storm events in the future. The severity and frequency of severe winter storms may increase due to climate change.

5.4 **Coastal Storm (Nor'easter)**

5.4.1 *Description*

For a description of this hazard, please see Section 5.4 of the main body of the plan.

5.4.2 *Hazard Vulnerability*

The Town is moderately vulnerable to a coastal storm, as documented in their hazard analysis in Section 4.1. A nor'easter could impact any location in the Town. Damages to the Town's critical infrastructure or primary evacuation routes (State Highways 812 and 58 and County Routes 22 and 24) would be most impactful to Town residents. Storm events would primarily impact the more populated portions of the Town, including the hamlets of Fowler and Hailesboro.

5.4.3 *Historical Hazard Occurrences and Damage Estimates*

The NCDC database contains no significant recorded damages for coastal storms that have affected St. Lawrence County. A recent nor'easter affected St. Lawrence County on February 3, 2021, which involved up to 14 inches of snow across the County. No damages in the Town of Fowler were reported for this event.

5.4.4 Future Potential Impacts

The Town of Fowler is very likely to experience nor'easter events in the future. The severity and frequency of nor'easters, while difficult to predict, may increase in the future due to climate change.

5.5 Flood

5.5.1 Description

For a description of this hazard, please see Section 5.7 of the main body of the plan.

5.5.2 Hazard Vulnerability

The Town is moderately vulnerable to a flood, as documented in their hazard analysis in Section 4.1. The Town is generally drained by the Oswegatchie River and its tributaries which drain to the St. Lawrence River. FEMA provides flood insurance rate maps for the Town of Fowler, however, FEMA does not currently have digital floodplain data available for St. Lawrence County. FEMA is currently working on a flood study to update all floodplain mapping throughout the County, and digital mapping will be generated as part of this project. In lieu of FEMA digital data, FEMA's HAZUS software was used to model the approximate 100-year and 500-year floodplain areas in St. Lawrence County. This process is described in more detail in Section 4.4 of the main body of the plan. The 100-year floodplain corresponds with areas that are at high risk for flooding (1% likely to flood any given year), and areas within a 500-year floodplain are at moderate flood risk (0.2% likely to flood in any given year). Table 8 summarizes the amount of land within the Town of Fowler that is located within 100-year and 500-year floodplains, as modeled by HAZUS.

Table 8. Summary of Areas in Floodplains (Source: FEMA HAZUS Flood Model, B&L, 2021)		
Town of Fowler Total Area	Percent of Total Area	
	100-Year HAZUS Floodplain	500-Year HAZUS Floodplain
38,541 acres	3.7%	0.25%

5.5.3 *Historical Hazard Occurrences and Damage Estimates*

According to the NCDRC, there were no floods specifically impacting the Town of Fowler since 2010, however, there are local records of flooding events. The Town reports incidents of flooding on County Route 24, and River Road. The flood on River Road was about three years ago, and took out a driveway. The Town also reports issues with beaver dams. As described in Section 6.0 of this annex, three NFIP loss claims have been paid as of October 2021 in the Town of Fowler totaling \$54,694.66. There are no repetitive loss properties in the Town.

5.5.4 *Future Potential Impacts*

Properties along streams throughout the Town, including the Oswegatchie and its tributaries are vulnerable to flooding. About 3.7% of the Town of Fowler is within a mapped 100-year floodplain.

5.6 Ice Jam

5.6.1 *Description*

For a description of this hazard, please see Section 5.6 of the main body of the plan.

5.6.2 *Hazard Vulnerability*

The Town is moderately vulnerable to an ice jam, as documented in their hazard analysis in Section 4.1. Properties along the Oswegatchie River are vulnerable to ice jams, particularly along River Road.

5.6.3 *Historical Hazard Occurrences and Damage Estimates*

There are no USACE CRREL or local records of an ice jam occurring specifically in the Town of Fowler. No damage estimates related to ice jams are reported specifically for the Town.

5.6.4 *Future Potential Impacts*

Properties along the Oswegatchie River remain vulnerable to ice jams. The frequency and magnitude of ice jam events may increase due to climate change.

5.7 **Wildfire**

5.7.1 *Description*

For a description of this hazard, please see Section 5.10 of the main body of the plan.

5.7.2 *Hazard Vulnerability*

The Town is moderately vulnerable to a wildfire, as documented in their hazard analysis in Section 4.1. Undeveloped lands such as forest and open fields and brush lands within the Town are susceptible to wildfires. Significant wildfires have not been reported in the Town, but this hazard was included in this annex for future mitigation planning consideration.

5.7.3 *Historical Hazard Occurrences and Damage Estimates*

The Town reports several wildfire events last year, one of which was reported on Route 58. According to Figure 5.11 (Appendix A of the main body of the plan), most of the Town experienced 0.9 to 1.3 wildfires per square mile from 2003 to 2017 according to reports from the NYSDEC. The eastern edge of the Town is mapped with a lower wildfire density during this time period (0.4 to 0.8 fires per square mile). A wildfire has the potential to cause hundreds of thousands of dollars in damages.

5.7.4 *Future Potential Impacts*

The entire Town of Fowler remains susceptible to a wildfire, particularly undeveloped areas. Wildfires are likely to increase in frequency and magnitude in the future due to climate change.

5.8 Extreme Temperatures

5.8.1 Description

For a description of this hazard, please see Section 5.5 of the main body of the plan.

5.8.2 Hazard Vulnerability

The Town is moderately vulnerable to extreme temperature events, as documented in their hazard analysis in Section 4.1. These temperatures typically affect most or all of the County. The entire Town of Fowler is susceptible to extreme temperatures. Extreme temperature events tend to have greater impacts on vulnerable populations, including older adults (over 65 years), young children (under 5 years), people with health problems, or people who cannot afford to sufficiently heat or cool their homes. Approximately 5.8% of the population in the Town of Fowler is under 5 years old, and 22.8% of the population is over 65 years old. Approximately 16.1% of the Town's population is below the poverty level. These populations are at a higher risk of being impacted by extreme temperature events.

5.8.3 Historical Hazard Occurrences and Damage Estimates

Since 2010, two cold/wind chill events and five heat waves were reported in the portion of St. Lawrence County where the Town of Fowler lies, which are described in Section 5.5 of the main body of the plan. No damage estimates related to extreme temperatures are reported specific to the Town of Fowler.

5.8.4 Future Potential Impacts

The Town of Fowler will continue to experience extreme temperature events in the future. Extreme temperatures are likely to increase in frequency and extremity in the future due to climate change.

5.9 Drought

5.9.1 Description

For a description of this hazard, please see Section 5.8 of the main body of the plan.

5.9.2 Hazard Vulnerability

The Town is moderately vulnerable to a drought, as documented in their hazard analysis in Section 4.1. The entire Town of Fowler is moderately susceptible to a drought due to the widespread extent and potential to cause moderate damages. Agricultural lands (mostly in the western portion of the Town) and properties served by private wells would experience the most significant impacts. The Town of Fowler does not have a municipal water system; therefore, all Town residents rely on private wells and may be susceptible to low water yields during a drought.

5.9.3 Historical Hazard Occurrences and Damage Estimates

The NCDC reports no specific drought events for the Town of Fowler. There are no specific damage estimates related to droughts in the Town.

5.9.4 Future Potential Impacts

The entire Town of Fowler remains susceptible to a drought event. Droughts are likely to increase in frequency and magnitude in the future due to climate change.

5.10 Earthquake

5.10.1 Description

For a description of this hazard, please see Section 5.9 of the main body of the plan.

5.10.2 Hazard Vulnerability

The Town is moderately vulnerable to an earthquake, as documented in their hazard analysis in Section 4.1. An earthquake could impact any location

within the Town, though historically, St. Lawrence County has not experienced significant earthquake damages. Earthquakes that damage the Town's critical infrastructure or emergency evacuation routes would result in the most significant impacts to the Town and its residents.

5.10.3 Historical Hazard Occurrences and Damage Estimates

According to the USGS Earthquake Catalog, there have been two earthquakes reported in St. Lawrence County between 2010 and 2021; however, none of these records were located in the Town of Fowler. An earthquake has the potential to cause hundreds of thousands of dollars in damages.

5.10.4 Future Potential Impacts

St. Lawrence County is within one of the most seismically active regions in New York State. Therefore, the Town remains susceptible to earthquakes.

5.11 Landslide

5.11.1 Description

For a description of this hazard, please see Section 5.11 of the main body of the plan.

5.11.2 Hazard Vulnerability

The Town is moderately vulnerable to a landslide, as documented in their hazard analysis in Section 4.1. The Town of Fowler is mapped in an area with low incidence for landslides (Figure 5.12, Appendix A of the main body of the plan). Areas with steep slopes or areas subject to erosion due to flooding along the Oswegatchie are particularly susceptible.

5.11.3 Historical Hazard Occurrences and Damage Estimates

The Town reported a local record of a landslide near the Emeryville Bridge on County Route 22 over the Oswegatchie River. This bridge is now closed due to rockslide concerns. A landslide has the potential to cause hundreds of thousands of dollars in damages.

5.11.4 Future Potential Impacts

Steep slopes in the Town remain vulnerable to landslides. Landslides typically occur on hilly or mountainous landscapes, and are also common in river valleys. They are most likely to occur in areas where they have occurred in the past.

5.12 Infestation

5.12.1 Description

For a description of this hazard, please see Section 5.12 of the main body of the plan.

5.12.2 Hazard Vulnerability

The Town's overall vulnerability for infestation is low, as documented in their hazard analysis in Section 4.1. The primary concern regarding an infestation in the Town of Fowler is the emerald ash borer, which was documented in St. Lawrence County in recent years. Forested areas with ash trees are vulnerable. The NYSDEC estimates that the total percentage of ash trees per total basal area ranges from about 7 to 30% in the Town of Fowler (Figure 5.13, Appendix A of the main body of the plan).

5.12.3 Historical Hazard Occurrences and Damage Estimates

The emerald ash borer has not yet been detected in the Town of Fowler, however, it has been detected in the northern part of the County. The emerald ash borer is able to spread two miles per year on average, and is likely to reach the Town of Fowler in the future. Areas where ash trees border roadways or utility lines pose the greatest damage potential. The St. Lawrence County Soil & Water Conservation District has estimated the cost of proactive emerald ash borer management countywide at over \$820,000 per year to keep up with anticipated spread.

5.12.4 Future Potential Impacts

The entire Town of Fowler remains susceptible to an infestation event. Given the documented infestations in the northern part of the County, the emerald ash borer is likely to migrate to the Town in the future, and proactive ash tree management will be critical to reduce potential impacts of this species.

6. National Flood Insurance Program

Long-term mitigation of potential flood impacts can be best achieved through comprehensive floodplain management regulations and enforcement at a local level. The National Flood Insurance Program (NFIP), regulated by FEMA, aims to reduce the impact of flooding on private and public structures by providing affordable insurance for property owners. The program encourages local jurisdictions to adopt and enforce floodplain management regulations in order to mitigate the potential effects of flooding on new and existing infrastructure (FEMA, 2015).

Communities that participate in the NFIP adopt floodplain ordinances. If an insured structure incurs damage costs that are over 50% of its market value, the owner must comply with the local floodplain regulations when repairing or rebuilding the structure. A structure could be rebuilt at a higher elevation, or it could be acquired and demolished by the municipality or relocated outside of the floodplain. Insured structures that are located within floodplains identified on FEMA's Flood Insurance Rate Maps (FIRMs) may receive payments for structure and content losses if impacted by a flood event.

The NFIP and other flood mitigation actions are important for the protection of public and private property and public safety. Flood mitigation is valuable to communities because it:

- Creates safer environments by reducing loss of life and decreasing property damage;
- Allows individuals to minimize post-flood disaster disruptions and to recover quicker (homes built to NFIP standards generally experience less damage from flood events, and when damage does occur, the flood insurance program protects the homeowner's investment); and
- Lessens the financial impacts on individuals, communities, and other involved parties (FEMA, 2015).

The Town of Fowler participates in the NFIP. As of October 2021, three NFIP loss claims have been paid in the Town of Fowler totaling \$54,694.66. There are no repetitive loss properties in the Town. The Town will continue to comply with the NFIP by enforcing floodplain management requirements and regulating new development in Special Flood Hazard Areas, among other required duties.

7. Mitigation Strategy and Prioritization

7.1 Past, Completed, and Ongoing Initiatives

The Town proposed one mitigation action in the 2015 St. Lawrence County HMP, and a status update is provided in Table 9, below. The Town's 2015 mitigation action was not re-included for the 2021 HMP update.

Table 9. Hazard Mitigation Action Progress Town of Fowler				
Proposed Mitigation Action	Hazard(s) Mitigated	Goals and Objectives Met	Implementing Agency	Status
Develop standards and procedures for maintaining adequate road and debris clearing capabilities.	Severe storm, ice storm	1,2,3	Town of Fowler Highway Department	Routine responsibility of highway department that is adequately addressed. The Highway Dept cuts back trees in town right-of-ways to limit damage if they fall. The animal control officer assists highway department for problem areas associated with beaver dams. Highway department now has upgraded equipment to better handle prevention and preparedness efforts.

7.2 Proposed Mitigation Actions

The Town proposed two new mitigation actions to be included in the HMP update. These actions are described in Table 10, below and on worksheets included in Attachment A.

Table 10. Proposed Hazard Mitigation Actions Town of Fowler									
Action ID	Mitigation Action	Hazard(s) Mitigated	Implementing Agencies (Lead* & Support)	Planning Mechanism	Timeframe	New or Existing Development	Estimated Cost	Funding Source(s)	Priority
Fowler 1	Install generators for Town Hall and Highway Dept	All	Fowler Town Board*	Local Emergency Operations Plan	5 years	Existing	\$30,000	Town Budget, DASNY- SAM, FEMA- BRIC, USDA RD - Community Facilities	Medium
Fowler 2	Complete drainage improvements along Emeryville Rd and develop a beaver maintenance plan.	Flood	Town of Fowler Highway Dept*, Fowler Town Board	None	5 years	Existing	High	NYSEFC- CWSRF, NYSDOT - CHIPS, FEMA- BRIC, Town Budget	Medium
Potential Funding Sources DASNY SAM: https://www.dasny.org/about-us/what-we-do/grants-administration FEMA BRIC: https://www.fema.gov/grants/mitigation/building-resilient-infrastructure-communities NYSDOT CHIPS: https://www.dot.ny.gov/programs/chips NYSEFC CWSRF: https://efc.ny.gov/CWSRF USDA RD Community Facilities: https://www.rd.usda.gov/programs-services/community-facilities/community-facilities-direct-loan-grant-program									

7.3 Cost-Benefit Analysis

Each of the Town's proposed mitigation actions were evaluated and prioritized using the STAPLEE cost-benefit analysis described in Section 7.2.3 of the main body of the plan. The Town's STAPLEE analysis (Table 11) is provided in Attachment A. The STAPLEE analysis considers the following lenses of evaluation: social, technological, administrative, political, legal, economic, and environmental. It also considers the level of overall costs and benefits of the action.

Attachment A

Mitigation Action Worksheets and STAPLEE Table

St. Lawrence County Multi-Jurisdictional Hazard Mitigation Plan
Hazard Mitigation Action Worksheet

Name of Jurisdiction:	Town of Fowler
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Mitigation Action Worksheet	
Project Name:	Install generators for Town Hall and Highway Dept
Project ID:	Fowler 1
Risk/Vulnerability	
Hazard of Concern:	All
Description of the Problem:	The Town Hall and Highway Department currently lack backup generators. Both facilities provide critical community services, especially during hazard events.
Action of Project Intended for Implementation	
Description of the Solution:	Install a standby generator at the Town Hall and Highway Dept so that both facilities may continue operating during power outages.

Is this project related to a Critical Facility? Yes X No

(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)

Level of Protection:	Medium	Estimated Benefits (losses avoided):	Improved continuity of operations at Town facilities
Useful Life:	Long-term		
Estimated Cost:	\$30,000		

Plan for Implementation			
Prioritization:	Medium	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Implementation:	5 years	Potential Funding Sources:	Town Budget, DASNY- SAM, FEMA- BRIC, USDA RD - Community Facilities
Responsible Organization:	Fowler Town Board*	Local Planning Mechanisms to be used in Implementation, if any:	Local Emergency Operations Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change from existing conditions
	Purchase portable generator to share between multiple Town facilities	\$10K	More flexible option as portable units can be used at different facilities when needed, but may not power entire facility and requires more coordination for usage.
	Install on-demand generator at town hall and highway department	\$30K	Offers maximum protection for Town facilities

Progress Report (for Plan Maintenance)	
Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

St. Lawrence County Multi-Jurisdictional Hazard Mitigation Plan
Hazard Mitigation Action Worksheet

Name of Jurisdiction:	Town of Fowler
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Mitigation Action Worksheet	
Project Name:	Complete drainage improvements along Emeryville Rd and develop a beaver maintenance plan.
Project ID:	Fowler 2
Risk/Vulnerability	
Hazard of Concern:	Flood
Description of the Problem:	The Town experiences recurring flooding issues on Emeryville Rd, primarily due to beaver dams coupled with a lack of designated drainage infrastructure.
Action of Project Intended for Implementation	
Description of the Solution:	Install stormwater conveyance infrastructure along Emeryville Rd (ditches, culverts), and develop a beaver dam maintenance plan to target the cause of the problem.

Is this project related to a Critical Facility? Yes _____ No X

(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater.)

Level of Protection:	Medium	Estimated Benefits (losses avoided):	Improved stormwater drainage, reduced flood-related road closures and damages
Useful Life:	Long-term		
Estimated Cost:	High		

Plan for Implementation			
Prioritization:	Medium	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Implementation:	5 years	Potential Funding Sources:	NYSEFC- CWSRF, NYSDOT - CHIPS, FEMA- BRIC, Town Budget
Responsible Organization:	Town of Fowler Highway Dept*, Town Board	Local Planning Mechanisms to be used in Implementation, if any:	None

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change from existing conditions
	Complete drainage improvements only	High	May help short-term but does not address root of flood issues in this location
	Complete drainage improvements and develop a beaver maintenance plan	High	Most comprehensive approach for flood mitigation

Progress Report (for Plan Maintenance)	
Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Table 11. STAPLEE Analysis of Proposed Mitigation Actions													
Action ID	Social	Technical	Administrative	Political	Legal	Economic	Environmental	Easily implemented?	Multiple objectives achieved?	Quickly implemented?	Overall Benefits	Overall Costs	Priority Rank
Fowler 1	+	+	+	+	+	0	0	0	+	0	Medium	Medium	1
Fowler 2	+	+	0	+	+	-	0	0	+	0	Medium	High	2