



## 9.27 TOWN OF MACHIAS

This section presents the jurisdictional annex for the Town of Machias. It includes resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions that can be implemented prior to a disaster to reduce or eliminate damage to property and people. This annex includes a general overview of the municipality and who in the town participated in the planning process; an assessment of the Town of Machias’ risk and vulnerability; the different capabilities utilized in the town; and an action plan that will be implemented to achieve a more resilient community.

### 9.27.1 Hazard Mitigation Planning Team

The following individuals have been identified as the Town of Machias’ hazard mitigation plan primary and alternate points of contact.

Table 9.27-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Timothy Byroads/Highway Superintendent Address: 3264 Hazelmere Ave, Machias, NY 14101 Phone Number: (716) 353-8851 Email: machiashwy2015@yahoo.com	Name/Title: Stephen Cornwall/Supervisor Address: Phone Number: 716-560-9178 Email: machias.supervisor@wnytwcb.com
NFIP Floodplain Administrator	
Name/Title: Chris Lever, CEO Address: 3483 Roszyk Hill Road, Machias, NY 14101 Phone Number: (716) 353-3747 Email: N/A	

### 9.27.2 Municipal Profile

The Town of Machias lies in the northeast part of Cattaraugus County in western New York State. The Town of Machias has a total area of 41.08 square miles. Lime Lake Outlet is a stream flowing out the north end of Lime Lake to Cattaraugus Creek. Frog Pond and Sucker Pond are two small bodies of water within the town. The town is bordered to the north by the Town of Yorkshire, to the northeast is the Town of Freedom, to the west is the Town of Ashford, to the southwest is the Town of Ellicottville, the east border is the Town of Farmersville and south is the Town of Franklinville.

There are three hamlets located within the town: Bakerstand, Bird, and Machias Junction. The estimated 2018 population was 2,380, a 17.1 percent decrease in population from 2010 (2,872 persons).

Data from the 2018 U.S. Census American Community Survey indicate that 4.9 percent of the town population is 5 years of age or younger and 19.4 percent is 65 years of age or older. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

### History and Cultural Resources

The Town of Machias received its name from Maine settlers. The Town of Machias was first settled in 1813 and established in 1827 from a portion of the Town of Yorkshire. In 1847, Machias was increased by additional territory from Yorkshire.





### 9.27.3 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to understanding a jurisdiction’s overall risk to its hazards of concern. Table 9.27-2 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development. Figure 9.27-1 and Figure 9.27-2 at the end of this annex illustrate the geographically-delineated hazard areas and the location of potential new development, where available.

**Table 9.27-2. Recent and Expected Future Development**

Type of Development	2014		2015		2016		2017		2018	
<b>Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)</b>										
	<b>Total</b>	<b>Within SFHA</b>	<b>Total</b>	<b>Within SFHA</b>	<b>Total</b>	<b>Within SFHA</b>	<b>Total</b>	<b>Within SFHA</b>	<b>Total</b>	<b>Within SFHA</b>
Single Family	2	0	1	0	2	0	1	0	2	0
Multi-Family	0	0	0	0	0	0	0	0	0	0
Other (commercial, mixed-use, etc.)	0	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s)*		Description / Status of Development		
<b>Recent Major Development and Infrastructure from 2014 to Present</b>										
N/A										
<b>Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years</b>										
N/A										

SFHA Special Flood Hazard Area (1% flood event)

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

### 9.27.4 Capability Assessment

The Town of Machias performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Section 6.4 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. This section summarizes the following findings of the assessment:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Information on National Flood Insurance Program (NFIP) compliance.
- Classification under various community mitigation programs.
- The community’s adaptive capacity for the impacts of climate change.

For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of this planning effort, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress in plan integration. Areas with current mitigation integration are summarized in Capability Assessment (Section 9.27.4). The Town of Machias



identified specific integration activities that will be incorporated into municipal procedures are included in the updated mitigation strategy. Appendix H provides the results of the planning/policy document review.

### Planning, Legal, and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Machias and where hazard mitigation has been integrated.

**Table 9.27-3. Planning, Legal, and Regulatory Capability**

	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action?	
<b>Codes, Ordinances, &amp; Requirements</b>							
Building Code	Yes	NY State Uniform Fire Prevention and Building Code, 2007-2	State	CEO	Yes	No	2020-Machias-011
Comment: none							
Zoning Code	No	-	-	-	No	-	-
Comment: none							
Subdivisions	No	-	-	-	No	-	-
Comment: none							
Stormwater Management	Yes	2015-2	Local	Machias Highway Dept	Yes	Yes	-
Comment: none							
Post-Disaster Recovery	No	-	-	-	No	-	-
Comment: none							
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent	Yes	Yes	-
Comment: none							
Growth Management	No	-	-	-	No	-	-
Comment: none							
Site Plan Review	No	-	-	-	No	-	-
Comment: none							
Environmental Protection	No	-	-	-	Yes	-	-
Comment: other plans or codes that refer to the Environmental Protection code/ordinance include the 2010-1 regulate wind energy/2002-regulating junk cars and refuse							
Flood Damage Prevention	Yes	1982	Local	CEO	Yes - BFE+2 feet for all construction in the SFHA (residential and non-residential)	No	2020-Machias-004
Comment: none							
Municipal Separate Storm Sewer System (MS4)	Yes	2015-2	Local	Town of Machias	Yes	Yes	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action?	
Comment: none							
Emergency Management	Yes	8/15/2006 EOP	Local	OEM	Yes	Yes	2020-Machias-010
Comment: none							
Climate Change	No	-	-	-	Yes	-	-
Comment: none							
Disaster Recovery Ordinance	No	-	-	-	No	-	-
Comment: none							
Disaster Reconstruction Ordinance	No	-	-	-	No	-	-
Comment: none							
Other	No	-	-	-	-	-	-
<b>Planning Documents</b>							
Comprehensive Plan	Yes	EOP, County CEMP	Local	Local and County	No	Yes	-
Comment: none							
Capital Improvement Plan	No	-	-	-	No	-	-
Comment: none							
Disaster Debris Management Plan	Yes	8/15/2006 EOP	Local and County	OEM	No	Yes	-
Comment: none							
Floodplain or Watershed Plan	Yes	LEWPA	County and State	County and State	No	Yes	-
Comment: none							
Stormwater Plan	No	-	-	-	No	-	-
Comment: none							
Open Space Plan	No	-	-	-	Yes	-	-
Comment: none							
Urban Water Management Plan	No	-	-	-	No	-	-
Comment: none							
Habitat Conservation Plan	No	-	-	-	No	-	-
Comment: none							
Economic Development Plan	No	-	-	-	No	-	-
Comment: none							
Shoreline Management Plan	No	-	-	-	Yes	-	-
Comment: none							
Community Wildfire Protection Plan	No	-	-	-	No	-	-
Comment: none							
Forest Management Plan	No	-	-	-	No	-	-



	Do you have this? (Yes/No)	Code Citation and Date (code chapter, name of plan, date of plan)	Authority (local, county, state, federal)	Department / Agency Responsible	State Mandated	Has this been integrated?	
						If no - can it be a mitigation action?	
Comment: none							
Transportation Plan	No	-	-	-	No	No	-
Comment: none							
Agriculture Plan	Yes	Cattaraugus County Agricultural and Farmland Protection Plan 2007	County	County	-	Yes	-
Comment: none							
Other (this could include a climate action plan, tourism plan, business development plan, etc.)	No	-	-	-	-	-	-
Comment: none							
<b>Response/Recovery Planning</b>							
Comprehensive Emergency Management Plan	No	-	-	-	Yes	No	2020-Machias-010
Comment: none							
Strategic Recovery Planning Report	No	-	-	-	-	-	-
Comment: none							
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	2012	County	County	Yes	Yes	-
Comment: none							
Post-Disaster Recovery Plan	No	-	-	-	No	-	-
Comment: none							
Continuity of Operations Plan	No	-	-	-	No	-	-
Comment: none							
Public Health Plan	Yes	2017	County	Department of Health	No	Yes	-
Comment: none							
Other	No	-	-	-	No	-	-

Table 9.27-4. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Response Yes/No; Provide further detail
Development Permits. If yes, what department?	Yes, CEO
Permits are tracked by hazard area. For example, floodplain development permits.	No
Buildable land inventory If yes, please describe If no, please quantitatively describe the level of buildout in the jurisdiction.	No-20%



### Administrative and Technical Capability

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

**Table 9.27-5. Administrative and Technical Capabilities**

Resources	Available? (Yes or No)	Department/ Agency/Position
<b>Administrative Capability</b>		
Planning Board	No	-
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	No	-
Warning Systems / Services (reverse 911, outdoor warning signals)	Yes	County
Maintenance programs to reduce risk	No	-
Mutual aid agreements	Yes	State mutual aid
<b>Technical/Staffing Capability</b>		
Planners or engineers with knowledge of land development and land management practices	No	-
Engineers or professionals trained in building or infrastructure construction practices	No	-
Planners or engineers with an understanding of natural hazards	No	-
Staff with expertise or training in benefit/cost analysis	No	-
Professionals trained in conducting damage assessments	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-
NFIP Floodplain Administrator (FPA)	Yes	CEO
Surveyor(s)	No	-
Emergency Manager	No	-
Grant writer(s)	No	-
Resilience Officer	No	-
Other	No	-

### Fiscal Capability

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

**Table 9.27-6. Fiscal Capabilities**

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	No
Capital improvements project funding	Yes, through the county
Authority to levy taxes for specific purposes	Yes
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	Yes
Incur debt through private activity bonds	Yes
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes



Financial Resources	Accessible or Eligible to Use (Yes/No)
Open Space Acquisition funding programs	No
Other	No

### Education and Outreach Capability

The table below summarizes the education and outreach resources available to the Town of Machias.

**Table 9.27-7. Education and Outreach Capabilities**

Indicate if your jurisdiction has the following resources	Yes/No; Please describe
Public information officer or communications office?	Yes, Supervisor
Personnel skilled or trained in website development?	No
Hazard mitigation information available on your website; if yes, describe	No
Social media for hazard mitigation education and outreach; if yes, briefly describe.	No
Citizen boards or commissions that address issues related to hazard mitigation; if yes, briefly describe.	No
Other programs already in place that could be used to communicate hazard-related information; if yes, briefly describe.	Yes, Refuse 911
Warning systems for hazard events; if yes, briefly describe.	Yes Reverse 911, IPAWS, County Administrator
Natural disaster/safety programs in place for schools; if yes, briefly describe.	No
Other	No

### Community Classifications

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

**Table 9.27-8. Community Classifications**

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	No	-	-
NYSDEC Climate Smart Community	No	-	-
Storm Ready Certification	No	-	-
Firewise Communities classification	No	-	-
Other	No	-	-

Note:

- N/A Not applicable
- NP Not participating
- Unavailable

### Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). In other words, it describes a jurisdiction’s current ability to adjust to, protect from, or withstand a hazard event. This term is often discussed in reference to climate change; however, adaptive capacity also includes an understanding of





local capacity for adapting to current and future risks and changing conditions. The table below summarizes the adaptive capacity for each hazard and the jurisdiction’s rating.

- The town does not currently have access to resources to determine the possible impacts of climate change upon the municipality and would rely on the county.

**Table 9.27-9. Adaptive Capacity**

Hazard	Adaptive Capacity (Capabilities) - High/Medium/Low*
Flood	Medium
Landslide	Medium
Severe Storm	High
Severe Winter Storm	High
Utility Failure	Medium
Wildfire	Medium

\*High Capacity exists and is in use  
 Medium Capacity may exist; but is not used or could use some improvement  
 Low Capacity does not exist or could use substantial improvement  
 Unsure Not enough information is known to assign a rating

### National Flood Insurance Program

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

#### NFIP Floodplain Administrator (FPA)

The Floodplain Administrator for the Town of Machias is Chris Lever, Code Enforcement Officer. Areas prone to flooding are along Ischua Creek. The town does not maintain a list of properties that have been damaged by flooding or a list of property owners interested in flood mitigation. There are not RiskMAP projects currently underway in the jurisdiction. The town uses State and FEMA standards to determine Substantial Damage. No properties have been mitigated. The town’s flood hazard maps adequately address the town’s flood risk.

#### National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the Town of Machias.

**Table 9.27-10. NFIP Summary**

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties
Town of Machias	1	0	\$0	0

Source: NYS DHES 2020  
 RL Repetitive Loss; SRL Severe Repetitive Loss

### Resources

The town’s Code Enforcement Officer is responsible for floodplain management however, there are no certified floodplain managers on staff. The town has access to resources to determine possible future flooding conditions for climate change through DEC. The town’s floodplain management staff needs certification training to support its floodplain management program. NFIP administration services is provided by the Code Enforcement. The town did not identify any barriers.





### Compliance History

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The town of Machias is not aware of any outstanding NFIP compliance violations that need to be addressed. The most current Community Assistance Visit (CAV) was on June 16, 1999 and the most recent Community Assistance Contact (CAC) was in June 23, 1992.

### Regulatory

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The town's floodplain management program does not meet the minimum requirements because it is outdated and does not include the required freeboard.

### Additional Areas of Existing Integration

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**Town Website:** The Town of Machias' website (<http://www.machiasny.org/>) hosts town information and announcements.

### Evacuation, Sheltering, Temporary Housing, and Permanent Housing

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Evacuation routes, sheltering measures, temporary housing, and permanent housing must all be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

#### Evacuation Routes

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The town identified two evacuation routes. Route 16 North and South and Route 242 East and West.

#### Sheltering

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The Town of Machias identified 9154 RT 16 Fire Department as a shelter in the event of an emergency. It has a capacity of 258 and accommodates pets. It is ADA compliant and does not have back up power.

#### Temporary Housing

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The town identified 3204 Hagelmare Ave Odosagih Bible Conference campground can be used as temporary housing in the event of an emergency. The camp has 20 sites and it has water, electric, and septic.

#### Permanent Housing

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The Town of Machias did not identify permanent housing in the event of an emergency, but the county has identified sites that can be used as permanent housing as shown in Figure 9.27-1 and Figure 9.27-2.

### 9.27.5 Hazard Event History Specific to the Town of Machias

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Cattaraugus County has a history of natural and non-natural hazard events as detailed in Volume I, Section 5 (Risk Assessment) of this plan. A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the county and its municipalities. The Town of Machias' history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Cattaraugus County. Table 9.27-11 provides details regarding municipal-specific loss and damages the town experienced during hazard events. Information provided in the table below is based on reference material or local sources. For details of these and additional events, refer to Volume I, Section 5.0 of this plan.



**Table 9.27-11. Hazard Event History**

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 27- November 8, 2012	Hurricane Sandy (FEMA-EM-3351)	Yes	Remnants of Hurricane Sandy brought strong winds and heavy rains to western and north central New York. Rainfall amounts of two to five inches were measured across the area with some area creeks reaching bankful. The high winds downed trees and power lines throughout the region. Wind gusts were measured to 60 mph.	Although the county was impacted, Town of Machias did not report any damages.
May 13-22, 2014	Severe Storms and Flooding (FEMA-DR-4180)	Yes	Heavy showers and embedded thunderstorms trained across the western Southern tier. Rainfall amounts of one to three inches in just a few hours resulted in flash flooding across the region. Roads and culverts were washed out. Numerous roads were water-covered and closed.	Although the county was impacted, Town of Machias did not report any damages
November 17-26, 2014	Severe Winter Storm, Snowstorm, and Flooding (FEMA-DR-4204)	Yes	Lake effect snow resulted in heavy snowfall across the region.	Although the county was impacted, Town of Machias did not report any damages
July 14, 2015	Flash Flood	No	Numerous rounds of storms along a stationary cold front resulted in flash flooding. Damaging winds occurred in some areas of the county.	Although the county was impacted, Town of Machias did not report any damages
March 8, 2017	High Wind	No	A strong low-pressure system brought strong and damaging winds to the entire region.	Although the county was impacted, Town of Machias did not report any damages

*Notes:*

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

**9.27.6 Hazard Ranking and Jurisdiction-Specific Vulnerabilities**

The hazard profiles in Section 5.0 (Risk Assessment) of this plan have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the Town of Machias’ risk assessment results and data used to determine the hazard ranking.

A gradient of certainty was developed to summarize the confidence level regarding the input used to populate the hazard ranking. A certainty factor of high, medium or low was selected and assigned to each hazard to provide a level of transparency and create increased understanding of the data used to support the resulting ranking. The following scale was used to assign a certainty factor to each hazard:

- High—Defined scenario/event to evaluate; probability calculated; evidenced-based/quantitative assessment to estimate potential impacts through hazard modeling.





- Moderate—Defined scenario/event or only a hazard area to evaluate; estimated probability; combination of quantitative (exposure analysis, no hazard modeling) and qualitative data to estimate potential impacts.
- Low—Scenario or hazard area is undefined; there is a degree of uncertainty regarding event probability; majority of potential impacts are qualitative.

### Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Section 5 (Risk Assessment) of the plan. The ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy as well as community capability and changing future climate conditions. This input supports the mitigation action development to target those hazards with highest level of concern.

As discussed in Section 5.3 (Hazard Ranking), each participating jurisdiction may have differing degrees of risk exposure and vulnerability compared to Cattaraugus as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the Town of Machias. The Town of Machias has reviewed the county hazard risk/vulnerability risk ranking table as well as its individual results to reflect the relative risk of the hazards of concern to the community.

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

- The Town of Machias decided to change severe winter storm from low to medium due to previous severe winter storm events.

Table 9.27-12. Hazard Ranking Input

Flood	Landslide	Severe Storm	Severe Winter Storm	Utility Failure	Wildfire
Low	Low	Low	Medium	High	Low

Note: The scale is based on the following hazard rankings as established in Section 5.3.

\*The town changed the initial ranking of this hazard based on event history, experience, and feedback from the town

### Critical Facilities

New York Department of Environmental Conservation (DEC) Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless constructed according to specific mitigation specifications, including being raised 2’ above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 500-year flood event, or worst damage scenario. For those that do not meet this criterion, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent annual chance floodplain and presents Hazards United States (HAZUS) – Multi-Hazards (MH) estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.





Table 9.27-13. Potential Flood Losses to Critical Facilities

Name	Type	Exposure	Addressed by Proposed Action
		1% Event	
Bentley Wildlife Marsh Dam	Dam	X	2020-Machias-001
Ischua Creek Watershed Dam #1	Dam	X	2020-Cattaraugus County-015 in the County Annex
Lime Lake Outlet Dam	Dam	X	2020-Machias-003

Source: Cattaraugus County 2020

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- The Bentley Wildlife Marsh Dam is in the special flood area and vulnerable to flooding. Critical facilities need to be protected to the 0.2% annual chance flood event.
- The Ischua Creek Watershed Dam #1 is in the special flood area and vulnerable to flooding. Critical facilities need to be protected to the 0.2% annual chance flood event. It is owned by Cattaraugus County, and is addressed in Section 9.1 of this HMP.
- The Lime Lake Outlet Dam is in the special flood area and vulnerable to flooding. Critical facilities need to be protected to the 0.2% annual chance flood event.
- The Town of Machias lacks an updated flood damage prevention ordinance.
- Floodplain Administration staff require additional training.
- Additional public education on wildfire risk is needed.

9.27.7 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and their prioritization.

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2014 Plan. Actions that are carried forward as part of this plan update are included in the following subsection in its own table with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such in the following table and may also be found under ‘Capability Assessment’ presented previously in this annex.



Table 9.27-14. Status of Previous Mitigation Actions

Project #	Project Name	Hazard(s) Addressed	Responsible Party	Brief Summary of the Original Problem and the Solution (Project)	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if complete)		Next Steps 1. Project to be included in 2020 HMP or Discontinue 2. If including action in the 2020 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
B3.17	Stream Stabilization along Bear Creek	Flood	Town	Bear Creek eroding	Complete			Discontinue



### Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Machias has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2014 Plan:

- None identified

### Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Machias participated in a mitigation action workshop in September 2020 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013). Table 9.27-15 summarizes the comprehensive range of specific mitigation initiatives the Town of Machias would like to pursue in the future to reduce the effects of hazards. Some of these initiatives may be previous actions carried forward for this plan update. These initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table below to further demonstrate the wide range of activities and mitigation measures selected.

As discussed in Section 6, 14 evaluation/prioritization criteria are used to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing your actions as ‘High’, ‘Medium’, or ‘Low.’ The table below summarizes the evaluation of each mitigation initiative, listed by Action Number.

Table 9.27-16 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.27-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2020-Machias-001	Protect Bentley Wildlife Marsh Dam to the 0.2% annual chance flood event	1	Flood	<b>Problem:</b> the Bentley Wildlife Marsh Dam is in the special flood hazard area and is vulnerable to flooding. Critical facilities must be protected to the 0.2% annual chance flood level	Yes	None	Within 5 years	Engineer, facility operator	TBD by feasibility assessment	Reduced likelihood of dam failure	HMGP, BRIC, HHPD; town budget	High	SIP	PP
				<b>Solution:</b> The town will conduct a feasibility assessment to determine what additional floodproofing measures are needed at the Municipal Hall to protect it to the 0.2% annual chance level. Options include: •Elevation of facility •Floodproofing of facility •Mobile flood barriers Once the most cost-effective option is identified, the town will carry out the option.										
2020-Machias-002	Work with the county to protect Ischua Creek Watershed Dam #1 to the 0.2% annual chance flood event	1	Flood	<b>Problem:</b> the Ischua Creek Watershed Dam #1 is in the special flood hazard area and is vulnerable to flooding.	Yes	None	Within 6 months	FPA	<\$100	Reduced likelihood of dam failure	HMGP, BRIC, HHPD; town budget	Med.	EAP	PI
				<b>Solution:</b> the town will work with the county and discuss options for protecting the dam to the 0.2% annual chance flood event.										
2020-Machias-003	Protect Lime Lake Outlet Dam to the 0.2% annual chance flood event	1	Flood	<b>Problem:</b> The Lime Lake Outlet Dam is in the special flood hazard area and is vulnerable to flooding. Critical facilities must be protected to the 0.2% annual chance flood level	Yes	None	Within 5 years	Engineer, facility operator	TBD by feasibility assessment	Reduced likelihood of dam failure	HMGP, BRIC, HHPD; town budget	High	SIP	PP
				<b>Solution:</b> The town will conduct a feasibility assessment to determine what additional floodproofing measures are needed at the Municipal Hall to										





Table 9.27-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				protect it to the 0.2% annual chance level. Options include: <ul style="list-style-type: none"> <li>•Elevation of facility</li> <li>•Floodproofing of facility</li> <li>•Mobile flood barriers</li> </ul> Once the most cost-effective option is identified, the town will carry out the option.										
2020-Machias-004	Develop a new Flood Damage Prevention Ordinance	2	Flood	<b>Problem:</b> The Town of Machias lacks an updated flood damage prevention ordinance <b>Solution:</b> The town will develop and adopt a flood damage prevention ordinance	No	None	Within 6 months	Town board	<\$100	Meet NFIP requirements, buildings built to a higher standard	Town Budget	High	LPR	PR
2020-Machias-005	Floodplain Administrator to attend training on floodplain management	3	Flood	<b>Problem:</b> Floodplain Managers require training. Those responsible for floodplain management are lacking in their knowledge of required duties. <b>Solution:</b> Obtain/host training and certification for floodplain managers	No	None	Within 5 years	County OES, County Building Codes	\$3,000	Certified floodplain managers trained Floodplain management improved.	County budget; town budget	High	LPR	PR
2020-Machias-006	Provide information to residents, business owners, and organizations about what they can do to prevent their structures from wildfires.	3	Wildfires	<b>Problem:</b> Additional public education on wildfire risk is needed <b>Solution:</b> the town will develop an outreach program to educate the public about wildfires and what they can do to protect their structures.	No	None	1 year	Town board	\$4,000	Public educated and better prepared and protected from hazards	Town budget	High	EAP	PI
2020-Machias-007	Generator for Machias Volunteer Fire Department	2	All Hazards	<b>Problem:</b> T6 Machias volunteer fire department is a designated emergency shelter location without back up power <b>Solution:</b> Purchase and install a 100 kW generator for the volunteer fire department so they can provide adequate	Yes	None	6 months	Machias VFD	\$100,000	Power loss prevented for the volunteer fire department	HMGP, BRIC	High	SIP	PP







Table 9.27-15. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				backup power to 300 people for short term/long term in the event of an emergency during a storm.										
2020-Machias-008	Bridge Replacement on Bear Creek Rd	2	Flood, Severe Storm	<b>Problem:</b> Culvert to potentially collapse trapping up to 100 people in a campground/residence area. <b>Solution:</b> Replace bridge on Bear Creek Road	No	None	2 years	Town Highway Dept.	\$150,000	Campground /residence protected from flooding	HMGP, BRIC	Med.	SIP	SP
2020-Machias-009	Protect home on 365 Lakeview Blvd from flooding	2	Flood, Severe Storm	<b>Problem:</b> Home at the lowest spot of Lakeview Blvd has flooded from storms. The town worked with DEC to install a bigger pipe to the lake, but it still backs up water. <b>Solution:</b> Conduct a study to determine the best mitigation action to prevent flooding of the home.	No	None	Within 2 years	Town	TBD based on project	Home protected from flooding	HMGP, BRIC, CBDG	Med.	SIP	PP
2020-Machias-010	Update the Emergency Operations Plan	2	All Hazards	<b>Problem:</b> outdated emergency operation plan <b>Solution:</b> Solution: Update the town's emergency operation plan	No	None	Within 1 year	County, Town	<\$100	Coordinated emergency response	Municipal budget	High	LPR	ES
2020-Machias-011	Update Building Codes	2	All Hazards	<b>Problem:</b> Outdated building codes <b>Solution:</b> Update the town's building codes	No	None	Within 1 year	County, Town	<\$100	Building Codes to provide standards to protect buildings from hazards	Municipal Budget	High	LPR	PP

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

Potential FEMA HMA Funding Sources:

Timeline:





CAV Community Assistance Visit  
 CRS Community Rating System  
 DPW Department of Public Works  
 EHP Environmental Planning and Historic Preservation  
 FEMA Federal Emergency Management Agency  
 FPA Floodplain Administrator  
 HMA Hazard Mitigation Assistance  
 Med. Medium  
 N/A Not applicable  
 NFIP National Flood Insurance Program  
 OEM Office of Emergency Management

FMA Flood Mitigation Assistance Grant Program  
 HMGP Hazard Mitigation Grant Program  
 BRIC Building Resilient Infrastructure and Communities

The time required for completion of the project upon implementation

Cost:

The estimated cost for implementation.

Benefits:

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes Critical Facility located in 1% floodplain

Mitigation Category:

- Local Plans and Regulations (LPR) – These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP) - These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP) – These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP) – These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities

CRS Category:

- Preventative Measures (PR) - Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP) - These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI) - Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR) - Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP) - Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES) - Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities





Table 9.27-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2020-Machias-001	Protect Bentley Wildlife Marsh Dam to the 0.2% annual chance flood event	1	1	1	1	1	1	0	1	1	1	0	0	1	1	11	High
2020-Machias-002	Work with the county to protect Ischua Creek Watershed Dam #1 to the 0.2% annual chance flood event	0	1	0	1	1	0	1	1	1	0	0	0	1	1	8	Medium
2020-Machias-003	Protect Lime Lake Outlet Dam to the 0.2% annual chance flood event	1	1	1	1	1	1	0	1	1	1	0	0	1	1	11	High
2020-Machias-004	Develop a Flood Damage Prevention Ordinance	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2020-Machias-005	Floodplain Administrator to attend training on floodplain management	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2020-Machias-006	Provide information to residents, business owners, and organizations about what they can do to prevent their structures from wildfires.	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High



Table 9.27-16. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2020-Machias-007	Generator for Machias Volunteer Fire Department	1	1	1	1	1	1	1	0	1	1	1	1	1	1	12	High
2020-Machias-008	Bridge Replacement on Bear Creek Rd	1	1	1	1	1	0	0	1	1	1	1	0	0	0	9	High
2020-Machias-009	Protect home on 365 Lakeview Blvd. from flooding	0	1	0	1	1	0	1	1	1	0	0	0	1	1	8	Medium
2020-Machias-010	Update the Emergency Operations Plan	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2020-Machias-011	Update Building Codes	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High

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



### 9.27.8 Proposed Mitigation Action Types

The table below indicates the range of proposed mitigation action categories.

Table 9.27-17. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Flood	X	X		X	X	X			X	X
Landslide	X	X				X				X
Severe Storm	X	X				X			X	X
Severe Winter Storm	X	X				X				X
Utility Failure	X	X				X				X
Wildfire	X	X		X		X	X			X

Note: Section 6 (Mitigation Strategy) provides for an explanation of the mitigation categories.

### 9.27.9 Staff and Local Stakeholder Involvement in Annex Development

The Town of Machias followed the planning process described in Section 3 (Planning Process) in Volume I of this plan update. This annex was developed over the course of several months with input from many town departments, including: The Supervisor and Highway Superintendent. The Highway Superintendent represented the community on the Cattaraugus County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meetings).

### 9.27.10 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Machias that illustrates the probable areas impacted within the municipality. These maps are based on the best available data at the time of the preparation of this plan and is considered to be adequate for planning purposes. The maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Machias has significant exposure. The maps are illustrated below.



Figure 9.27-1. Town of Machias Hazard Area Extent and Location Map 1

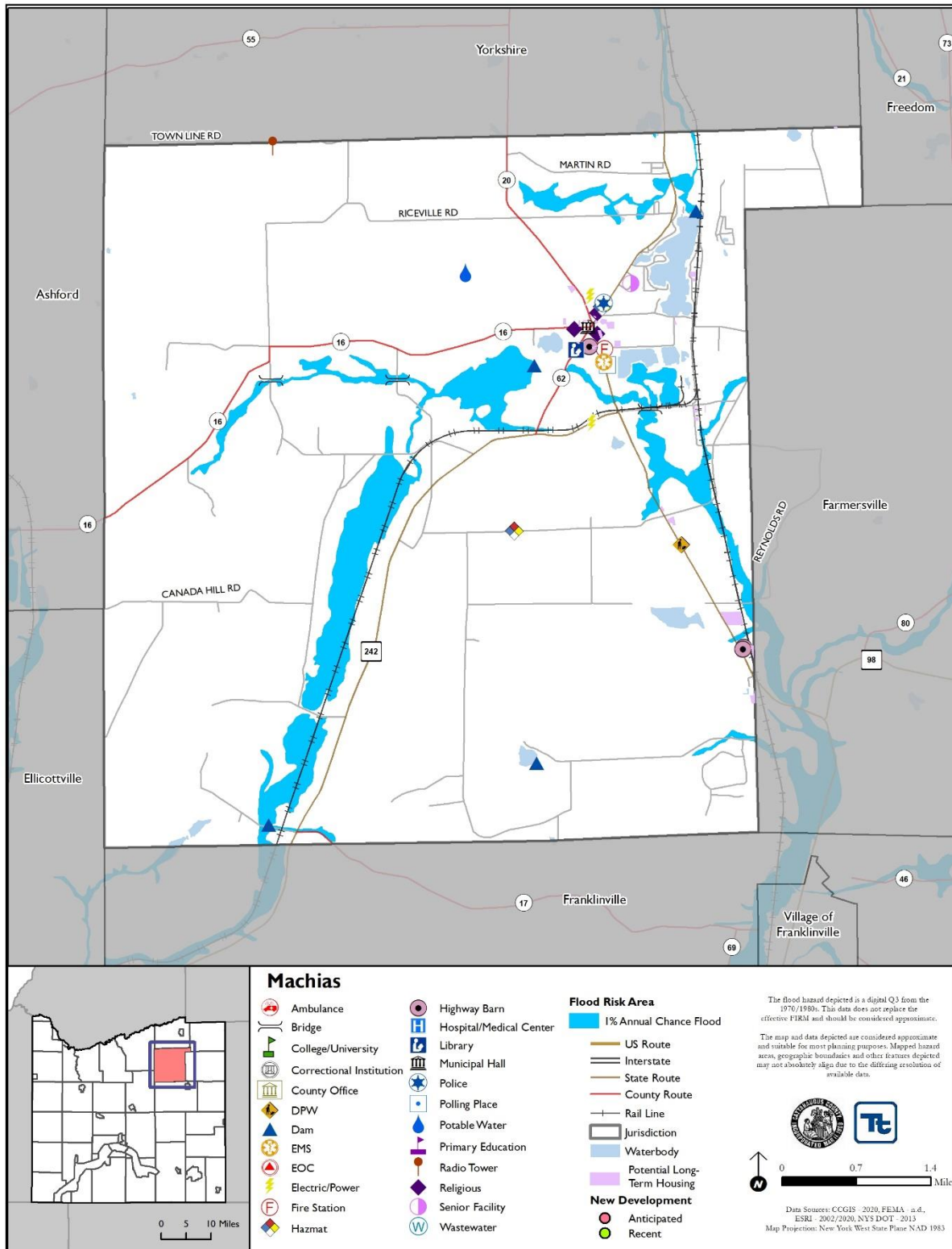
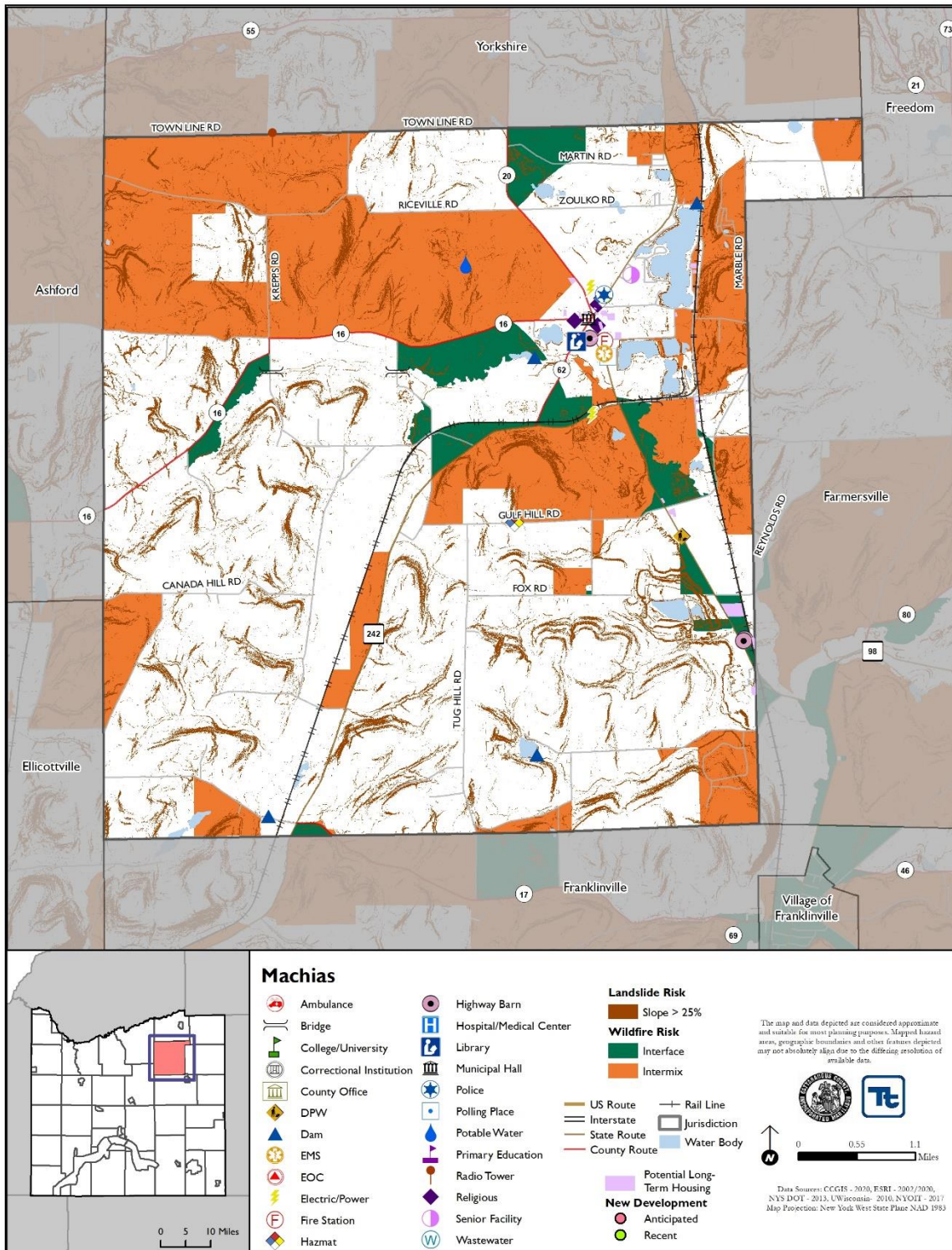




Figure 9.27-2. Town of Machias Hazard Area Extent and Location Map 2





Town of Machias Action Worksheet			
<b>Project Name:</b>	Protect Bentley Wildlife Marsh Dam to the 0.2% annual chance flood event		
<b>Project Number:</b>	2020-Machias-001		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood		
<b>Description of the Problem:</b>	The Bentley Wildlife Marsh Dam is in the special flood hazard area and is vulnerable to flooding. Critical facilities must be protected to the 0.2% annual chance flood level		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	<p>The town will conduct a feasibility assessment to determine what additional floodproofing measures are needed at the Municipal Hall to protect it to the 0.2% annual chance level. Options include:</p> <ul style="list-style-type: none"> <li>•Elevation of facility</li> <li>•Floodproofing of facility</li> <li>•Mobile flood barriers</li> </ul> <p>Once the most cost-effective option is identified, the town will carry out the option. Solution: the town FPA will contact the facility manager and discuss options for protecting the facility dam to the 0.2% annual chance flood event.</p>		
<b>Is this project related to a Critical Facility?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Is this project related to a Critical Facility located within the 100-year floodplain?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	0.2% annual chance flood event	<b>Estimated Benefits (losses avoided):</b>	Reduced likelihood of dam failure
<b>Useful Life:</b>	TBD by feasibility assessment	<b>Goals Met:</b>	1
<b>Estimated Cost:</b>	TBD by feasibility assessment	<b>Mitigation Action Type:</b>	Structure and Infrastructure
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 5 years
<b>Estimated Time Required for Project Implementation:</b>	Within 5 years	<b>Potential Funding Sources:</b>	HMGP, BRIC, HHPD; town budget
<b>Responsible Organization:</b>	Engineer, facility operator	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Relocate Dam	N/A	Not possible
	Build levee around dam	N/A	No space for full levee system
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			





Action Worksheet		
<b>Project Name:</b>	Protect Bentley Wildlife Marsh Dam to the 0.2% annual chance flood event	
<b>Project Number:</b>	2020-Machias-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Bentley Wildlife Marsh Dam
Property Protection	1	Project will protect Bentley Wildlife Marsh Dam from flood damage.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The town has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	Within 5 years
Agency Champion	1	Engineer, facility manager
Other Community Objectives	1	Protection of critical services
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Town of Machias Action Worksheet			
<b>Project Name:</b>	Protect Lime Lake Outlet Dam to the 0.2% annual chance flood event		
<b>Project Number:</b>	2020-Machias-003		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood		
<b>Description of the Problem:</b>	The Lime Lake Outlet Dam is in the special flood hazard area and is vulnerable to flooding. Critical facilities must be protected to the 0.2% annual chance flood level		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	<p>The town will conduct a feasibility assessment to determine what additional floodproofing measures are needed at the Municipal Hall to protect it to the 0.2% annual chance level. Options include:</p> <ul style="list-style-type: none"> <li>•Elevation of facility</li> <li>•Floodproofing of facility</li> <li>•Mobile flood barriers</li> </ul> <p>Once the most cost-effective option is identified, the town will carry out the option.</p>		
<b>Is this project related to a Critical Facility?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Is this project related to a Critical Facility located within the 100-year floodplain?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	0.2% annual chance flood event	<b>Estimated Benefits (losses avoided):</b>	Reduced likelihood of dam failure
<b>Useful Life:</b>	TBD by feasibility assessment	<b>Goals Met:</b>	1
<b>Estimated Cost:</b>	TBD by feasibility assessment	<b>Mitigation Action Type:</b>	Structure and Infrastructure
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 5 years
<b>Estimated Time Required for Project Implementation:</b>	Within 5 years	<b>Potential Funding Sources:</b>	HMGP, BRIC, HHPD; town budget
<b>Responsible Organization:</b>	Engineer, facility operator	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
<b>Alternatives:</b>	<b>Action</b>	<b>Estimated Cost</b>	<b>Evaluation</b>
	No Action	\$0	Problem continues.
	Relocate Dam	N/A	Not possible
	Build levee around dam	N/A	No space for full levee system
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Protect Lime Lake Outlet Dam to the 0.2% annual chance flood event	
<b>Project Number:</b>	2020-Machias-003	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Lime Lake Outlet Dam
Property Protection	1	Project will protect Lime Lake Outlet Dam from flood damage.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The town has the legal authority to complete the project.
Fiscal	0	Project requires funding support.
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	Within 5 years
Agency Champion	1	Engineer, facility manager
Other Community Objectives	1	Protection of critical services
<b>Total</b>	11	
<b>Priority (High/Med/Low)</b>	High	



Town of Machias Action Worksheet			
<b>Project Name:</b>	Generator for Machias Volunteer Fire Department		
<b>Project Number:</b>	2020-Machias-007		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	All Hazards		
<b>Description of the Problem:</b>	T6 Machias volunteer fire department is a designated emergency shelter location without back up power		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Purchase and install a 100 Kw generator for the volunteer fire department so they can provide adequate backup power to 300 people for short term/long term in the event of an emergency during a storm.		
<b>Is this project related to a Critical Facility?</b>	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
<b>Is this project related to a Critical Facility located within the 100-year floodplain?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	No loss of power	<b>Estimated Benefits (losses avoided):</b>	Power loss prevented for the volunteer fire department; ability to use the facility as a shelter during a power outage
<b>Useful Life:</b>	30 years	<b>Goals Met:</b>	2
<b>Estimated Cost:</b>	\$100,000	<b>Mitigation Action Type:</b>	Structure and Infrastructure
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	Within 6 months
<b>Estimated Time Required for Project Implementation:</b>	6 months	<b>Potential Funding Sources:</b>	HMGP, BRIC
<b>Responsible Organization:</b>	Machias Volunteer Fire Department	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Install solar panels	\$100,000	Weather dependent; need large amount of space for installation; expensive if repairs needed
	Install wind turbine	\$100,000	Weather dependent; poses a threat to wildlife; expensive repairs if needed
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Generator for Machias Volunteer Fire Department	
<b>Project Number:</b>	2020-Machias-007	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect critical services of Machias Volunteer Fire Department
Property Protection	1	Project will protect Machias Volunteer Fire Department from power loss.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The town has the legal authority to complete the project.
Fiscal	1	
Environmental	0	
Social	1	
Administrative	1	
Multi-Hazard	1	All hazards
Timeline	1	6 months
Agency Champion	1	Town
Other Community Objectives	1	
<b>Total</b>	12	
<b>Priority (High/Med/Low)</b>	High	



Town of Machias Action Worksheet			
<b>Project Name:</b>	Bridge Replacement on Bear Creek Rd		
<b>Project Number:</b>	2020-Machias-008		
Risk / Vulnerability			
<b>Hazard(s) of Concern:</b>	Flood, Severe Storm		
<b>Description of the Problem:</b>	Culvert to potentially collapse trapping up to 100 people in a campground/residence area.		
Action or Project Intended for Implementation			
<b>Description of the Solution:</b>	Replace bridge on Bear Creek Road		
<b>Is this project related to a Critical Facility?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
<b>Is this project related to a Critical Facility located within the 100-year floodplain?</b>	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
<b>Level of Protection:</b>	No loss of power	<b>Estimated Benefits (losses avoided):</b>	Campground/residence protected from flooding
<b>Useful Life:</b>	100 years	<b>Goals Met:</b>	2
<b>Estimated Cost:</b>	\$150,000	<b>Mitigation Action Type:</b>	Structure and Infrastructure
Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	2 years
<b>Estimated Time Required for Project Implementation:</b>	2 years	<b>Potential Funding Sources:</b>	HMGP, BRIC
<b>Responsible Organization:</b>	Highway Department	<b>Local Planning Mechanisms to be Used in Implementation if any:</b>	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Remove Bridge	N/A	Need access to campground/residence
	Culvert Replacement	\$15,000	Bridge still undersized unable to allow water to pass underneath
Progress Report (for plan maintenance)			
<b>Date of Status Report:</b>			
<b>Report of Progress:</b>			
<b>Update Evaluation of the Problem and/or Solution:</b>			



Action Worksheet		
<b>Project Name:</b>	Bridge Replacement on Bear Creek Rd	
<b>Project Number:</b>	2020-Machias-008	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project will protect campground and residence
Property Protection	1	Project will protect Bear Creek Road
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	0	
Fiscal	0	
Environmental	1	
Social	1	Public supports this project.
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	0	
Agency Champion	0	Town
Other Community Objectives	0	
<b>Total</b>	9	
<b>Priority (High/Med/Low)</b>	High	