# 9.29 Town of Waterford

This section presents the jurisdictional annex for the Town of Waterford. The town provided the following updates that were incorporated into this annex:

- Jurisdictional Annex Update Form (Contact Information, Profile, and Capability Assessment)
- Hazard Ranking

## **9.29.1 Hazard Mitigation Plan Point of Contact**

Primary Point of Contact	Alternate Point of Contact
Paul McInerney, Assistant to Public Safety	Harry Martel, Highway Superintendent
Commissioner	35 South St.; Waterford NY 12188
65 Broad St.; Waterford NY 12188	(518) 376-1678
(518) 369-0652	martelhb@town.waterford.ny.us
mcinerneypm@town.waterford.ny.us	

## 9.29.2 Town Profile

## Population

8,423 (American Community Survey 5-Year 2016 Estimates)

## Location

The Town of Waterford, formed on April 17, 1816, is located in the southeastern corner of Saratoga County, north of the City of Troy. Its area is the smallest of any of the twenty towns in the county, being but seven square miles. It is bounded on the north by Halfmoon, on the east by the Hudson River and on the south and west by the Mohawk River. The Town of Waterford contains a village, also called Waterford. The east town line, defined by the Hudson River, is the border of Rensselaer County, and the south town line, defined by the Mohawk River, is the border of Albany County. The easternmost section and locks of the Erie Canal, which connects with the Hudson River pass through the town. The "Waterford flight" of locks is one of the highest in the world. The Erie Canal is linked to the Champlain Canal at Waterford. US Route 4, partly conjoined with New York State Route 32, is a north-south highway through eastern Waterford.

According to the U.S. Census Bureau, the town has a total area of 7.4 square miles (19.2 km<sup>2</sup>), with 6.6 square miles (17.0 km<sup>2</sup>) of it land and 0.9 square miles (2.2 km<sup>2</sup>) of it (11.59-percent) water.

## Climate

Saratoga County, with all its municipalities, generally experiences seasonable weather patterns characteristic of the northeastern U.S. Warm summers are typically experienced, with occasional high temperatures and humidity. Midsummer temperatures typically range from 60°F to 83°F (Fahrenheit). The winters of Saratoga County are long and cold, with temperatures typically ranging from 12°F to 30°F (Fahrenheit). During the winter, temperatures are cooler than the temperatures in areas located near large bodies of water. Snow accumulates to an average depth of 68.7 inches each year.

### **Brief History**

The town is part of the Van Schaick patent of 1687. The first settlement took place at the site of the current Waterford village, then called "Half Moon Point." The town was formed by splitting the area of southeastern Saratoga County known as Halfmoon (anglicized from the Dutch name Halve Maan) into Town of Halfmoon and the Town of Waterford in 1816. The Village of Waterford is the oldest incorporated village in the USA, having been incorporated in 1794, before the town was formed. Waterford has hosted the "Canal Fest" and "Tugboat Roundup" for many years.

### **Governing Body Format**

The Town of Waterford is governed by a five-member Town Board.

### **Growth/Development Trends**

No specific plans to date.

## 9.29.3 Town-Specific Hazard Information

Detailed hazard event histories can be found in the Previous Occurrences and Losses sections of each hazard profile in Section 5. Table 9.29-1 summarizes the Town of Waterford's ranking of the natural hazards based on probability of occurrence and impacts to the town.

	Tuble 7.27 1 Town of Waterford Hazard Kanking									
Rank #	Hazard Type	Probability of Occurrence	Risk Ranking Scoreª	Hazard Ranking <sup>ь</sup>						
7	Drought	Rare	6	Low						
6	Earthquake	Rare	7	Medium						
4	Extreme Temperature	Infrequent	12	Medium						
3	Flood (riverine, flash, coastal and urban flooding)	Regular	45	High						
4	Ground Failure	Infrequent	12	Medium						
7	Invasive Species	Rare	6	Low						

#### Table 9.29-1 Town of Waterford Hazard Ranking

Rank #	Hazard Type	Probability of Occurrence	Risk Ranking Score <sup>a</sup>	Hazard Ranking⁵
2	Severe Storm (windstorms, thunderstorms, hail, lightning and tornados)	Frequent	68	High
1	Severe Winter Storm (heavy snow, blizzards, ice storms)	Frequent	72	High
7	Wildfire	Rare	6	Low

a. Risk ranking score = Probability x Impact

 b. High = Total hazard priority risk ranking score of 31 and above; Medium = Total hazard priority risk ranking of 16-30; and Low = Total hazard risk ranking below 15

## 9.29.4 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Legal and regulatory capability;
- Administrative and technical capability;
- Fiscal capability; and,
- Community classification.

### Legal and Regulatory Capability

Table 9.29-2 Legal and Regulatory	Capability of the Town of Waterford
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Regulatory Tools (Codes, Ordinances, Plans)	Local Authority (Y or N)	Prohibitions (State or Federal) (Y or N)	Higher Jurisdictional Authority (Y or N)	State Mandated (Y or N)	Code Citation (Section, Paragraph, Page Number, date of adoption)
1) Building Code	Y	N	Y	N	Art. I, Ch 88, Sec 88-1, pg 8802 1983
2) Zoning Ordinance	Y	N	N	N	Chp 161, Art.I, Sec 16101, pg. 16105 1966
3) Subdivision Ordinance	Y	N	N	N	Art. X, Sec.161-51, pg. 16190.1, 1989
4) NFIP Flood Damage Prevention Ordinance (if you are in the NFIP, you must have this.)	Y	Y	Y	Y	Chp 91, Art. 9101, pg. 9101, 1995
5) Growth Management	Ν	Ν	Ν	Ν	Not provided
6) Floodplain Management / Basin Plan	N	Y	Y	N	Not provided

#### Multi-Jurisdictional Hazard Mitigation Plan

Saratoga County, New York November 4, 2019

Regulatory Tools (Codes, Ordinances, Plans)	Local Authority (Y or N)	Prohibitions (State or Federal) (Y or N)	Higher Jurisdictional Authority (Y or N)	State Mandated (Y or N)	Code Citation (Section, Paragraph, Page Number, date of adoption)
7) Stormwater Management Plan/Ordinance	Y	N	Y	Y	Passed June 6,2006 - Local Law #2
8) Comprehensive Plan / Master Plan/ General Plan	Y	N	N	N	July 2, 2002
9) Capital Improvements Plan	N	Ν	N	Ν	Not provided
10) Site Plan Review Requirements	Y	Y	Y	N	Chp. 131, Art.131-1, pg. 13102, 1986
11) Open Space Plan	N	Ν	N	Ν	Not provided
12) Economic Development Plan	N	N	N	N	Not provided
13) Emergency Response Plan	Y	N	Y	Y	N/A
14) Post Disaster Recovery Plan	N	N	N	N	N/A
15) Post Disaster Recovery Ordinance	N	N	N	N	N/A
16) Real Estate Disclosure req.	N	N	N	N	Not provided
17) Other [Special Purpose Ordinances (i.e., critical or sensitive areas)]	N	N	N	N	Not provided

## Administrative and Technical Capability

#### Table 9.29-3 Administrative and Technical Capability of the Town of Waterford

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
1) Planner(s) or Engineer(s) with knowledge of land development and land management practices	Y	Director of Planning, Town Engineer
2) Engineer(s) or Professional(s) trained in construction practices related to buildings and/or infrastructure	Y	Glenn Hebert, Building Inspector Dom Gabriel, Town Engineer
<ol> <li>Planners or engineers with an understanding of natural hazards</li> </ol>	Y	AME /contracted engineer for Town Adirondack Mountain Engineering
4) Floodplain Administrator	Υ	Glenn Hebert – Building Inspector
5) Surveyor(s)	Y	AME /contracted engineer for Town Adirondack Mountain Engineering
6) Personnel skilled or trained in "GIS" applications	Y	AME /contracted engineer for Town Adirondack Mountain Engineering
7) Scientist familiar with natural hazards in the Town of Waterford.	Ν	Not provided

#### **Multi-Jurisdictional Hazard Mitigation Plan**

Saratoga County, New York November 4, 2019

Staff/ Personnel Resources	Available (Y or N)	Department/ Agency/Position
8) Emergency Manager	Υ	Assistant to PSC, Paul McInerney
9) Grant Writer(s)	Ν	
10) Staff with expertise or training in benefit/cost analysis	Y	Budget Officer

## **Fiscal Capability**

#### Table 9.29-4 Fiscal Capability of the Town of Waterford

Financial Resources	Accessible or Eligible to use (Yes/No/Don't know)
1) Community development Block Grants (CDBG)	Y
2) Capital Improvements Project Funding	Y
3) Authority to Levy Taxes for specific purposes	Y
4) User fees for water, sewer, gas or electric service	Y
5) Impact Fees for homebuyers or developers of new development/homes	Y
6) Incur debt through general obligation bonds	Y
7) Incur debt through special tax bonds	Y
8) Incur debt through private activity bonds	N
9) Withhold public expenditures in hazard-prone areas	Don't know
10) State sponsored grant programs such as FCAAP	Y
11) Other	Not provided

## **Community Classifications**

#### Table 9.29-5 Community Classifications of the Town of Waterford

Program	Classification	Date Classified
Community Rating System (CRS)	NP	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	NP	N/A
Public Protection	NP	N/A
Storm Ready	NP	N/A
Firewise	NP	N/A

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

The classifications listed above relate to the community's effectiveness in providing services that may impact its vulnerability to the natural hazards identified. These classifications can be viewed as a gauge of the community's capabilities in all phases of emergency management (preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. The CRS class applies to flood insurance while the BCEGS and Public Protection classifications apply to standard property insurance. CRS classifications range on a scale of 1 to 10 with class one being the best possible classification, and class 10

Multi-Jurisdictional Hazard Mitigation Plan Saratoga County, New York November 4, 2019 representing no classification benefit. Firewise classifications include a higher classification when the subject property is located beyond 1000 feet of a creditable fire hydrant and is within 5 road miles of a recognized Fire Station. Criteria for classification credits are outlined in the following documents:

- The Community Rating System Coordinators Manual;
- The Building Code Effectiveness Grading Schedule;
- The ISO Mitigation online ISO's Public Protection website at: https://www.isomitigation.com/ppc/;
- The National Weather Service Storm Ready website at https://www.weather.gov/stormready/; and,
- The National Firewise Communities website at http://firewise.org/.

## 9.29.5 Mitigation Strategy

### **Proposed Hazard Mitigation Initiatives**

#### Table 9.29-6 Proposed Hazard Mitigation Initiatives of the Town of Waterford

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Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
TWF-1a	Where appropriate, support retrofitting of structures located in hazard-prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for retrofitting based on cost- effectiveness versus relocation. Where retrofitting is determined to be a viable option, consider implementation of that action based on available funding.	Existing	Flood, Severe Storm	1, 2, 3, 5	1-1, 1- 2, 1-3, 2-2, 2- 3, 2-4, 3-1, 3- 5	Municipality (likely through NFIP Floodplain Administrator)	NYS DHSES, FEMA	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Long Term

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
TWF-1b	Where appropriate, support purchase, or relocation of structures located in hazard- prone areas to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Identify facilities that are viable candidates for relocation based on cost- effectiveness versus retrofitting. Where relocation is determined to be a viable option, consider implementation of that action based on available funding.	Existing	Flood, Severe Storm	1, 2, 3, 5	1-1, 1- 2, 1-3, 2-2, 2- 3, 2-4, 3-1, 3- 5	Municipality (likely through NFIP Floodplain Administrator)	NYS DHSES, FEMA	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Long Term
TWF-2	Consider participation in incentive-based programs such as CRS.	New & Existing	Flood	1, 2, 5	1-1, 1- 3, 1-6, 2-1, 2- 2, 2-3, 2-4, 5- 2	Municipality (likely through NFIP Floodplain Administrator)	NYS DHSES, ISO, FEMA	Low - Medium	Local Budget	Long Term
TWF-3	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	New & Existing	All Hazards	All	All	Municipality (through mitigation planning point of contacts)	County (through Mitigation Planning Coordinator), NYS DHSES	Low – High (for 5-year update)	Local Budget, possibly FEMA Mitigation Grant Funding for 5- year update	Ongoing

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
TWF-4	Strive to maintain compliance with, and good- standing in the National Flood Insurance program.	New & Existing	Flood	1, 2, 4	1-1, 1- 2, 1-3, 1-8, 2- 2, 2-3, 2-4, 4- 1, 4-2, 4-3, 4- 4	Municipality (likely through NFIP Floodplain Administrator)	NYS DHSES, ISO, FEMA	Low - Medium	Local Budget	Ongoing
TWF-5	Continue to develop, enhance, and implement existing emergency plans.	New & Existing	All Hazards	1, 3	1-1, 1- 7, 3-2, 3-4, 3- 5	Municipal Emergency Manager with support from County OEM and NYS DHSES	County Emergency Management, NYS DHSES	Low - Medium	Local Budget	Ongoing
TWF-6	Create/enhance/ maintain mutual aid agreements with neighboring communities.	New & Existing	All Hazards	3, 5	3-4, 5- 1, 5-3	Local Emergency Management, DPW and Roads	Surrounding municipalities and County	Low - Medium	Local Budget	Ongoing – Long-term depending on initiative
TWF-7	Support County-wide initiatives identified in Section 9.1 of the County Annex.	New & Existing	All Hazards	All	All	Local departments (as applicable for specific initiative)	County and Regional agencies (as appropriate for initiative)	Low - High	Existing programs and grant funding where applicable	Short Term

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
TWF-8	Amend the Zoning Ordinances of the Town and Village to correct existing ambiguities and problems and incorporate zoning tools to implement recommendations in the Comprehensive Plan and the Local Waterfront Revitalization Plan. Per the Comprehensive Plan	New & Existing	All Hazards	1, 3, 4	1-7, 1- 8, 3-1, 4-4	Town Board	County and Regional agencies (as appropriate)	Low	Local Budget	Short Term
TWF-9	Create/update the Emergency Action Plans for all dams located within the municipality.	Existing	Flood	1, 3	1-1, 1- 6, 1- 7, 3-1, 3- 2, 3-4	Municipality	Watershed districts (if applicable); neighboring municipalities; County (if applicable); NYS	Medium to Low	FEMA HMA	Short Term
TWF-10	Implement dam structure repairs as required by dam safety report/protocols	Existing	Flood	3	3-1, 3- 3, 3-6	Municipality	Watershed districts (if applicable); neighboring municipalities; County (if applicable); NYS	Medium	FEMA HMA	Ongoing – Long-term depending on initiative
TWF-11	Support the Installation/Implementation of Community Emergency Alert System	New & Existing	All Hazards	1, 3, 5	1-1, 3- 1, 3-3, 3-5, 3- 6, 5-1	Municipality	Watershed districts (if applicable); neighboring municipalities; County (if applicable); NYS	Medium	FEMA HMA	Short Term

Initiative	Mitigation Initiative	Applies to New and/or Existing Structures*	Hazard(s) Mitigated	Goals Met	Objectives Met	Lead Agency	Support agencies	Estimated Cost	Sources of Funding	Timeline
TWF-12	Create a mitigation support fund to provide matching funds on an ongoing basis for municipality and residential mitigation projects which will fund cost- sharing portions of projects and be replenished during the annual budget cycle	New & Existing	All Hazards	1, 2, 3, 5	1-3, 1- 9, 2-5, 3-1, 5- 2	Municipality		Medium	Operating budget	Long Term

\*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure?

Notes: Short term = 1 to 5 years; Long Term= 5 years or greater; OG = Ongoing program; DOF = Depending on funding; NA = Not applicable; PDM = Pre-Disaster Mitigation Grant Program.

#### **Analysis of Mitigation Actions**

This table summarizes the participant's mitigation actions by hazard of concern and the six mitigation types to illustrate that the Town has selected a comprehensive range of actions/projects.

	Type of Mitigation Action									
Hazard of Concern	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects				
Drought	TWF-3, TWF-7, 8, 11, 12	TWF-3, TWF-7,	TWF-3, TWF-7,	TWF-3, TWF-7, 8	TWF-3, TWF-5, 6, 7, 11	TWF-3, TWF-7,				
Earthquake	TWF-3, TWF-7, 8, 11, 12	TWF-3, TWF-7,	TWF-3, TWF-7,	TWF-3, TWF-7, 8	TWF-3, TWF-5, 6, 7, 11	TWF-3, TWF-7,				
Extreme Temperatures	TWF-3, TWF-7, 8, 11, 12	TWF-3, TWF-7,	TWF-3, TWF-7,	TWF-3, TWF-7, 8	TWF-3, TWF-5, 6, 7, 11	TWF-3, TWF-7,				

Table 9.29-7 Analysis of Mitigation Actions of the Town of Waterford

	Type of Mitigation	Action				
Hazard of Concern	Prevention	Property Protection	Public Education and Awareness	Natural Resource Protection	Emergency Services	Structural Projects
Flooding (riverine, flash, coastal and urban flooding)	TWF-2, 3, 4, TWF-7, 8, 11, 12	TWF-1a, 1b, 2, 3, 4, 7	TWF-1a, 1b, 2, 3, 4, 7	TWF-3, TWF-7, 8	TWF-2, 3, TWF-5, 6, 7, 11	TWF-3, TWF-7, 10
Ground Failure	TWF-3, TWF-7, 8, 11, 12	TWF-3, TWF-7,	TWF-3, TWF-7,	TWF-3, TWF-7, 8	TWF-3, TWF-5, 6, 7, 11	TWF-3, TWF-7,
Invasive Species	TWF-3, TWF-7, 8, 11, 12	TWF-3, TWF-7,	TWF-3, TWF-7,	TWF-3, TWF-7, 8	TWF-3, TWF-5, 6, 7, 11	TWF-3, TWF-7,
Severe Storms (windstorms, thunderstorms, hail, lightning and tornados)	TWF-2, 3, 4, TWF-7, 8, 11, 12	TWF-1a, 1b, 2, 3, 4, 7	TWF-1a, 1b, 2, 3, 4, 7	TWF-3, TWF-7, 8	TWF-2, 3, TWF-5, 6, 7, 11	TWF-3, TWF-7,
Severe Winter Storm (heavy snow, blizzards, ice storms)	TWF-3, TWF-7, 8, 11, 12	TWF-3, TWF-7,	TWF-3, TWF-7,	TWF-3, TWF-7, 8	TWF-3, TWF-5, 6, 7, 11	TWF-3, TWF-7,
Wildfire	TWF-3, TWF-7, 8, 11, 12	TWF-3, TWF-7,	TWF-3, TWF-7,	TWF-3, TWF-7, 8	TWF-3, TWF-5, 6, 7, 11	TWF-3, TWF-7,

Notes:

1. **Prevention:** Government, administrative or regulatory actions or processes that influence the way land and buildings are developed and built. These actions also include public activities to reduce hazard losses. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.

2. **Property Protection:** 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.

3. **Public Education and Awareness:** 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 school-age and adult education programs.

4. Natural Resource Protection: 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.

5. **Emergency Services:** 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.

6. Structural Projects: 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.

## **Prioritization of Mitigation Initiatives**

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits equal or exceed Costs? (Yes or No)	k Is project Grant eligible? (Yes or No)	Can Project be funded under existing programs/budgets? (Yes or No)	Priority (High, Med., Low)
TWF- 1a	8	Н	Н	Y	Y	Ν	M-H*
TWF- 1b	8	Н	Н	Y	Y	N	M-H*
TWF-2	8	М	L	Y	N	Y	Н
TWF-3	28	М	М	Y	N (Yes for 5-year update)	Y	Н
TWF-4	11	L	L	Y	Ν	Y	Н
TWF-5	5	М	L	Y	Ν	Y	М
TWF-6	35	М	L	Y	N	Y	Н
TWF-7	28	Н	L-M	Y	Dependent on specific initiative	Dependent on specific initiative	M-H (dependent)
TWF-8	4	М	L	Y	Ν	Y	Н
TWF-9	6	М	M-L	Y	Y	Y (local match)	М
TWF- 10	3	М	М	Y	Y	Y (local match)	М
TWF- 11	6	М	М	Y	Y	Y (local match)	М
TWF- 12	6	М	М	Y	Ν	Y	Н

#### Table 9.29-8 Prioritization of Mitigation Initiatives of the Town of Waterford

Notes: H = High. L = Low. M = Medium. N = No. N/A = Not applicable. Y = Yes.

\*This initiative has a Medium priority based on the prioritization scheme used in this planning process (implementation based on grant funding), however it is recognized that addressing repetitive and severe repetitive loss properties is considered a high priority by Federal Emergency Management Agency (FEMA) and NYS Division of Homeland Security and Emergency Services (NYS DHSES) (as expressed in the State HMP), and thus shall be considered a High priority for all participants in the planning process.

## **Explanation of Priorities**

- High Priority A project that meets multiple objectives (i.e., multiple hazards), benefits exceeds cost, has funding secured or is an on-going project and project meets eligibility requirements for the Hazard Mitigation Grant Program (HMGP) or Pre-Disaster Mitigation Grant Program (PDM) programs. High priority projects can be completed in the short term (1 to 5 years).
- Medium Priority A project that meets goals and objectives, benefits exceeds costs, funding has not been secured but project is grant eligible under, HMGP, PDM or other

grant programs. Project can be completed in the short term, once funding is completed. Medium priority projects will become high priority projects once funding is secured.

Low Priority - Any project that will mitigate the risk of a hazard, benefits do not exceed the costs or are difficult to quantify, funding has not been secured and project is not eligible for HMGP or PDM grant funding, and time line for completion is considered long term (1 to 10 years). Low priority projects may be eligible other sources of grant funding from other programs. A low priority project could become a high priority project once funding is secured as long as it could be completed in the short term.

Prioritization of initiatives was based on above definitions: Yes.

Prioritization of initiatives was based on parameters other than stated above: Not Applicable.

## 9.29.6 Future Needs to Better Understand Risk/Vulnerability

None at this time.

## 9.29.7 Additional Comments

No additional comments at this time.