

9.29 TOWN OF WATERFORD

This section presents the jurisdictional annex for the Town of Waterford.

A.) HAZARD MITIGATION PLAN POINT OF CONTACT

Primary Point of Contact	Alternate Point of Contact
Paul McInerney/Dispatcher Supervisor 65 Broad St., Waterford NY 12188 (518) 237-3341 mcinerneypm@town.waterford.ny.us	Harry Martel/Highway Superintendent 35 South St., Waterford NY 12188 (518) 376-1678 martelhb@town.waterford.ny.us

B.) TOWN PROFILE

Population

8,573 (estimated 2007 U.S. Census)

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 km²), with 6.6 square miles (17.0 km²) of it land and 0.9 square miles (2.2 km²) 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 been host to "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.

New Development/Potential Development in Municipality					
Property Name	Type	Number of Structures	Address	Block and Lot	Description
N/A					

C.) NATURAL HAZARD EVENT HISTORY SPECIFIC TO THE TOWN

Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Blizzard	Not applicable	March, 1888	Not available
Flood	Not applicable	March, 1913	Not available
Extreme Cold	Not applicable	January, 1957	Not available
Flood	Not applicable	March, 1936	Fourth Street inundated
Snowstorm and Extreme Cold	Not applicable	February, 1961	\$81,000 (countywide)
Extreme Cold	Not applicable	January, 1968	Not available
Flood (Tropical Storm Agnes)	Not applicable	June, 1972	\$1,600,000 (countywide)
Flood	Not applicable	March, 1977	Not available
Extreme Cold	Not applicable	February, 1979	Not available
Extreme Cold	Not applicable	December, 1980	Not available
Snowstorm	Not applicable	January, 1983	\$238,000 (countywide)
Snowstorm	Not applicable	April, 1983	\$238,000 (countywide)
Snowstorm	Not applicable	December, 1983	\$179,000 (countywide)
Snowstorm	Not applicable	February, 1984	\$238,000 (countywide)
Flood	Not applicable	May, 1984	\$2,400,000 (countywide)
Flood	Not applicable	March, 1986	\$1,400,000 (countywide)
Flood	Not applicable	August, 1986	\$505,000 (countywide)
Flood	Not applicable	April, 1987	\$2,100,000 property damage; \$208,000 crop damage; 3 injuries (countywide)

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Type of Event	FEMA Disaster # (if applicable)	Date	Preliminary Damage Assessment
Severe Winter Storm	DR-801	October, 1987	Not available
Snowstorm	Not applicable	February, 1990	\$545,000 (countywide)
Freezing Rain	Not applicable	March, 1991	\$833,000 (countywide)
Blizzard and Extreme Cold	EM-3107	March, 1993	Not available
Extreme Cold	Not applicable	January, 1994	Not available
Snowstorm	Not applicable	February, 1995	\$500,000 (countywide)
Snowstorm	Not applicable	March, 1995	\$100,000 (countywide)
Severe Storm and Flooding	DR-1095	January, 1996	\$10,000,000 (countywide)
Flood	Not applicable	April, 1996	\$40,000 (countywide)
Severe Storms and Flooding	Not applicable	November, 1996	\$404,000 (countywide); road closures
Snowstorm	Not applicable	March / April, 1997	\$709,000 (countywide)
Severe Winter Storm and Flooding	DR-1196	January, 1998	Between \$125,000 and \$745,000 (countywide); 125 evacuations; power outages
Severe Storms and Flooding (Hurricane Floyd)	DR-1295	September, 1999	Not available
Flood	Not applicable	February, 2000	\$63,000 (countywide)
Severe Storms	Not applicable	May/September, 2000	\$80,000 (countywide)
Flood	Not applicable	December, 2000	\$190,000 (countywide)
Snowstorm	Not applicable	March, 2001	Not available
Snowstorm	EM-3173	December 2002 / January 2003	Not available
Severe Storms, Tornado and Flooding	Not applicable	July / August 2003	Between \$100,000 and \$160,000 (countywide)
Severe Storms and Flooding	DR-1534	May / June 2004	\$14,000,000 (statewide)
Severe Storms and Flooding	Not applicable	June/July, 2006	Power outages; significant flooding of Lock 3 of Eric Canal and Front Street
Ice Storm	Not applicable	January, 2007	Power outages
Snowstorm (Valentine's Day Storm)	Not applicable	February, 2007	Not available
Ice Storm/Snow	EM-1827 EM-3299	December, 2008	\$208,000 (countywide)

Number of FEMA Identified Repetitive Flood Loss Properties: 7
Number of FEMA Identified Severe Repetitive Flood Loss Properties: 1

Source: FEMA Region 2, November 2008



D.) NATURAL HAZARD RISK/VULNERABILITY RISK RANKING

Rank #	Hazard type	Estimate of Potential Dollar Losses to Structures Vulnerable to the Hazard ^{a,c}	Probability of Occurrence	Risk Ranking Score (Probability x Impact)	Hazard Ranking ^b
4	Earthquake	\$41,396,647 ^{c,e}	Rare	11	Low
1	Flood (riverine, flash, coastal and urban flooding)	\$27,183,000 ^{c,e}	Frequent	54	High
3	Ground Failure	Not available ^f	Occasional	24	Medium
2	Severe Storm (windstorms, thunderstorms, hail, lightning and tornados)	\$851,050 ^{c,d}	Frequent	51	High
1	Severe Winter Storm (heavy snow, blizzards, ice storms)	\$23,529,050 ^{c,d}	Frequent	54	High

a. Building damage ratio estimates based on FEMA 386-2 (August 2001)

b. High = Total hazard priority risk ranking score of 31 and above

Medium = Total hazard priority risk ranking of 16-30

Low = Total hazard risk ranking below 15

c. The valuation of general building stock and loss estimates determined in Saratoga County were based on the default general building stock database provided in HAZUS-MH MR3 (RSMeans 2006).

d. Severe storm and severe winter storm hazard 500-year MRP loss estimate is structural value only; does not include the value of contents. For severe winter storm, the loss estimate is 5% of total general building stock value.

e. Loss estimates for both structure and contents (500-year MRP for the flood hazard and 2,500-year MRP for the earthquake hazard).

f. Approximately 100% of the Town's general building stock is located within the landslide hazard area, and thus vulnerable.

E.) CAPABILITY ASSESSMENT

This section identifies the following capabilities of the local jurisdiction:

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

E.1) Legal and Regulatory Capability

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,pg16105 1966
3) Subdivision Ordinance	Y	N	N	N	Art. X,Sec.161-51,pg16190.1, 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,pg9101, 1995
5) Growth Management	N	N	N	N	
6) Floodplain Management / Basin Plan	N	Y	Y	N	
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	N	N	N	
10) Site Plan Review Requirements	Y	Y	Y	N	Chp. 131,Art.131-1,pg13102, 1986
11) Open Space Plan	N	N	N	N	
12) Economic Development Plan	N	N	N	N	
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	
17) Other [Special Purpose Ordinances (i.e., critical or sensitive areas)]	N	N	N	N	

E.2) Administrative and Technical Capability

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	Raymond Carmel, Building Inspector
3) Planners or engineers with an understanding of natural hazards	Y	CHA /contracted engineer for Town
4) NFIP Floodplain Administrator (if you are in the NFIP, you must have one.)	Y	Raymond Carmel – Building Inspector
5) Surveyor(s)	Y	CHA/contracted engineer for Town
6) Personnel skilled or trained in “GIS” applications	Y	CHA/contracted engineer for Town
7) Scientist familiar with natural hazards in the Town of Waterford.	N	
8) Emergency Manager	Y	PSC John Tanchak
9) Grant Writer(s)	N	
10) Staff with expertise or training in benefit/cost analysis	Y	Budget Officer

E.3) Fiscal Capability

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 mitigation grant programs (e.g. NYSDEC, NYCDEP)	Y
11) Other	

E.4) Community Classifications

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 (1) being the best possible classification, and class 10 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 <http://www.isomitigation.com/ppc/0000/ppc0001.html>
- The National Weather Service Storm Ready website at <http://www.weather.gov/stormready/howto.htm>
- The National Firewise Communities website at <http://firewise.org/>

F.) PROPOSED HAZARD MITIGATION INITIATIVES

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-0 SC-33	Schedule visits by FEMA to provide information to the community with special attention to SRL property on Kelts Grove and RL properties on Kelts Grove, Mohawk Avenue, and O'Conner Drive. This outreach will be supported by the Saratoga County Office of Emergency Services and implemented by the Town to support future applications for mitigation funding for RL and SRL properties.	New & Existing	Flood, Severe Storm	1, 2, 3, 5	1-1, 1-2, 1-3, 2-2, 2-3, 2-4, 3-1, 3-5	Municipal Engineering (NFIP Floodplain Administrator)	NYSEMO Saratoga County Office of Emergency Services	Low	Municipal Budget	Short
TWF-1	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements including regulating all new and substantially improved construction in Special Hazard Flood Areas, floodplain identification and mapping, and flood insurance outreach to the community. Further, continue to meet and/or exceed the minimum NFIP standards and criteria through the following NFIP-related continued compliance actions identified as Initiatives 1a through 1f.	New & Existing	Flood, Severe Storm	1, 2, 5	1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2	Municipal Engineering (NFIP Floodplain Administrator)	NYSEMO Saratoga County Office of Emergency Services	Low	Municipal Budget	Short
TWF-	Consider the adoption of	New	Flood	1, 2, 5	1-1, 1-3, 1-6,		NYSEMO	Low	Municipal	Short



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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
1a	higher regulatory standards to manage flood risk (i.e. increased freeboard, cumulative substantial damage/improvements).				2-1, 2-2, 2-3, 2-4, 5-2		Saratoga County Office of Emergency Services		Budget	
TWF-1b	Develop and implement an enhanced public outreach/education/information program, including: (for example) develop a flood risk management webpage on the municipal website where information and mapping can be posted, include NFIP information in regular newsletter and mailings, etc....	N/A	Flood	1, 2, 5	1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2		NYSEMO Saratoga County Office of Emergency Services	Low	Municipal Budget	Short
TWF-1c	Determine if a Community Assistance Visit (CAV) or Community Assistance Contact (CAC) is needed, and schedule if needed.	N/A	Flood	1, 2, 5	1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2		NYSEMO Saratoga County Office of Emergency Services	Low	Municipal Budget	Short
TWF-1d	Have designated NFIP Floodplain Administrator (FPA) become a Certified Floodplain Manager through the ASFPM, and consider relevant continuing education training such as FEMA Benefit-Cost Analysis.	N/A	Flood	1, 2, 5	1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2		NYSEMO Saratoga County Office of Emergency Services	Low	Municipal Budget	Short
TWF-1e	Continue to require and archive elevation certificates.	New & Existing	Flood	1, 2, 5	1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2	Municipal Engineering (NFIP Floodplain Administrator)		Low	Municipal Budget	Short
TWF-1f (SC-5)	Consider participation in the Community Rating System to further manage flood risk in the City and reduce flood insurance premiums for NFIP	New & Existing	Flood, Coastal Storm	1, 2, 5	1-1, 1-3, 1-6, 2-1, 2-2, 2-3, 2-4, 5-2	Municipal Engineering (NFIP Floodplain Administrator)	NYSEMO Saratoga County Office of Emergency Services	Low	City Budget	Short



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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
	policyholders. This would include attendance at County sponsored NFIP-CRS information workshops during year one of the plan implementation period.									
TWF-2a	Where appropriate, support retrofitting (e.g. elevation) 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);	NYSEMO Saratoga County Office of Emergency Services	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Short
TWF-2b	Where appropriate, support acquisition 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),	NYSEMO Saratoga County Office of Emergency Services	High	FEMA Mitigation Grant Programs and local budget (or property owner) for cost share	Short
TWF-	Continue to support the	New &	All Hazards	1	All	Municipality	County	Low – High (for	Local	Ongoing



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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
3	implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	Existing		through 5		(through mitigation planning point of contacts)	(through Mitigation Planning Coordinator), SEMO	5-year update)	Budget, possibly FEMA Mitigation Grant Funding for 5-year update	
TWF-4	Expand public education on ways to protect property before and during hazard events. Conduct continued public and stakeholder outreach to promote awareness of this Plan and obtain ongoing public and stakeholder input. Specific activities shall include maintaining the public HMP website, media releases, maintaining copies of the plan in city hall, and may include public meetings, informational flyers, press releases, and public service announcements	Existing	All	1 through 5	All	Municipal Administrator		Low	Local Budget, HMA grant	Short
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 SEMO	County Emergency Management, SEMO	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
TWF-7	Support County-wide initiatives identified in Section 9.1 of the County Annex.	New & Existing	All Hazards	1 through 5	All	Local departments (as applicable	County and Regional agencies (as	Low - High	Existing programs and grant	Ongoing – Long-term depending



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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
						for specific initiative)	appropriate for initiative)		funding where applicable	on initiative
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	Ongoing
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	DOF
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	DOF
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	DOF



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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-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	Short
TWF-13 (SC-32)	Enhance the County/community resilience to severe storms (incl. severe winter storms) by joining the NOAA "Storm Ready" program and supporting communities in joining the program. "StormReady" communities are better prepared to save lives from the onslaught of severe weather through advanced planning, education and awareness. Participation in the NOAA "StormReady" program shall include providing information on the "StormReady" program, facilitating public outreach and awareness programs, and supporting community storm risk reduction activities as appropriate. Specific actions addressed by "StormReady" participation include establishing a 24 hour Warning Point, increase number of ways EOC receives NWS warnings, increase number of ways to disseminate warnings, monitoring hydrometeorological	NA	Severe Storm, Severe Winter Storm	1, 2, 3	1-7, 1-9, 2-2, 2-4, 2-5, 3-4	Municipal Administration	Saratoga County Office of Emergency Services	Low	Local Budget	Short



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
	data, providing annual weather safety talks, train weather spotters, create a formal hazardous weather plan, host annual visits by NWS to communities, etc.									

Notes: Short term = 1 to 5 years. Long Term= 5 years or greater. OG = On going program. DOF = Depending on funding. PDM = Pre-Disaster Mitigation Grant Program.

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



G.) 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.

Hazard of Concern	Mitigation Type					
	1. Prevention	2. Property Protection	3. Public Education and Awareness	4. Natural Resource Protection	5. Emergency Services	6. Structural Projects
Earthquake	TWF-3, TWF-4, TWF-7, TWF-8, TWF-11, TWF-12	TWF-3, TWF-7	TWF-3, TWF-7	TWF-3, TWF-7, TWF-8	TWF-3, TWF-5, TWF-6, TWF-7, TWF-11	TWF-3, TWF-7
Flooding (riverine, flash, coastal and urban flooding)	TWF-0, TWF-2, TWF-3, TWF-4, TWF-7, TWF-8, TWF-9, TWF-11, TWF-12, TWF-13	TWF-1, TWF-2, TWF-3, TWF-4, TWF-7	TWF-1, TWF-2, TWF-3, TWF-4, TWF-7	TWF-3, TWF-7, TWF-8	TWF-2, TWF-3, TWF-5, TWF-6, TWF-7, TWF-11	TWF-3, TWF-7, TWF-10
Ground Failure	TWF-3, TWF-7, TWF-8, TWF-11, TWF-12	TWF-3, TWF-7	TWF-3, TWF-7	TWF-3, TWF-7, TWF-8	TWF-3, TWF-5, TWF-6, TWF-7, TWF-11	TWF-3, TWF-7
Severe Storms (windstorms, thunderstorms, hail, lightning and tornados)	TWF-0, TWF-2, TWF-3, TWF-4, TWF-7, TWF-8, TWF-11, TWF-12, TWF-13	TWF-1, TWF-2, TWF-3, TWF-4, TWF-7	TWF-1, TWF-2, TWF-3, TWF-4, TWF-7	TWF-3, TWF-7, TWF-8	TWF-2, TWF-3, TWF-5, TWF-6, TWF-7, TWF-11	TWF-3, TWF-7
Severe Winter Storm (heavy snow, blizzards, ice storms)	TWF-3, TWF-7, TWF-8, TWF-11, TWF-12, TWF-13	TWF-3, TWF-7	TWF-3, TWF-7	TWF-3, TWF-7, TWF-8	TWF-3, TWF-5, TWF-6, TWF-7, TWF-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.

H.) PRIORITIZATION OF MITIGATION INITIATIVES

Initiative #	# of Objectives Met	Benefits	Costs	Do Benefits equal or exceed Costs? (Yes or No)	Is project Grant eligible? (Yes or No)	Can Project be funded under existing programs/budgets? (Yes or No)	Priority (High, Med., Low)
TWF-0	8	L	L	Y	N	Y	H
TWF-1	8	M	M	Y	N	Y	M-H
TWF-2	8	H	H	Y	N	N	M-H*
TWF-3	28	M	M	Y	N (Yes for 5 year update)	Y	H
TWF-4	35	L	L	Y	N	Y	H
TWF-5	5	M	L	Y	N	Y	M
TWF-6	35	M	L	Y	N	Y	H
TWF-7	28	H	L-M	Y	Dependant on specific initiative	Dependant on specific initiative	M-H (dependant)
TWF-8	4	M	L	Y	N	Y	H
TWF-9	6	M	M-L	Y	Y	Y (local match)	M
TWF-10	3	M	M	Y	Y	Y (local match)	M
TWF-11	6	M	M	Y	Y	Y (local match)	M
TWF-12	6	M	M	Y	N	Y	H
TWF-13	6	L	L	Y	N	Y	H

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 FEMA and SEMO (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.

I.) FUTURE NEEDS TO BETTER UNDERSTAND RISK/VULNERABILITY

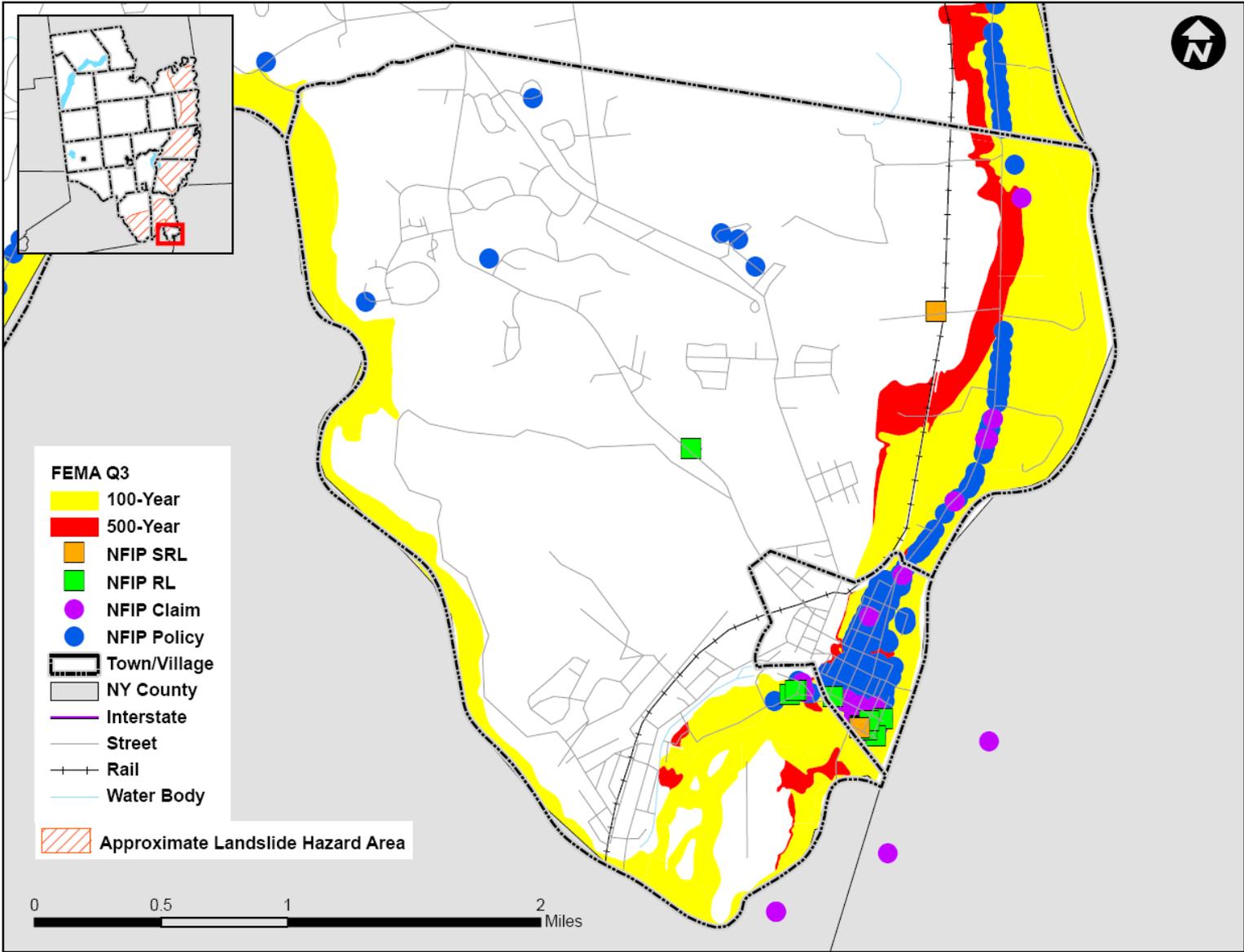
None at this time.

J.) HAZARD AREA EXTENT AND LOCATION

A hazard area extent and location map has been generated and is provided below for the Town of Waterford to illustrate the probable areas impacted within the Town. This map is based on the best available data at the time of the preparation of this Plan, and is considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which the Town of Waterford has significant exposure. The County maps are provided in the hazard profiles within Section 5.4, Volume I of this Plan.

K.) ADDITIONAL COMMENTS

No additional comments at this time.



Sources: FEMA Q3; FEMA Region II, 2008; HAZUS-MH MR3; NYS DPC, 2008

Notes: NFIP = National Flood Insurance Program

The entire municipality is vulnerable to the following hazards: earthquake, severe storm, and severe winter storm.

