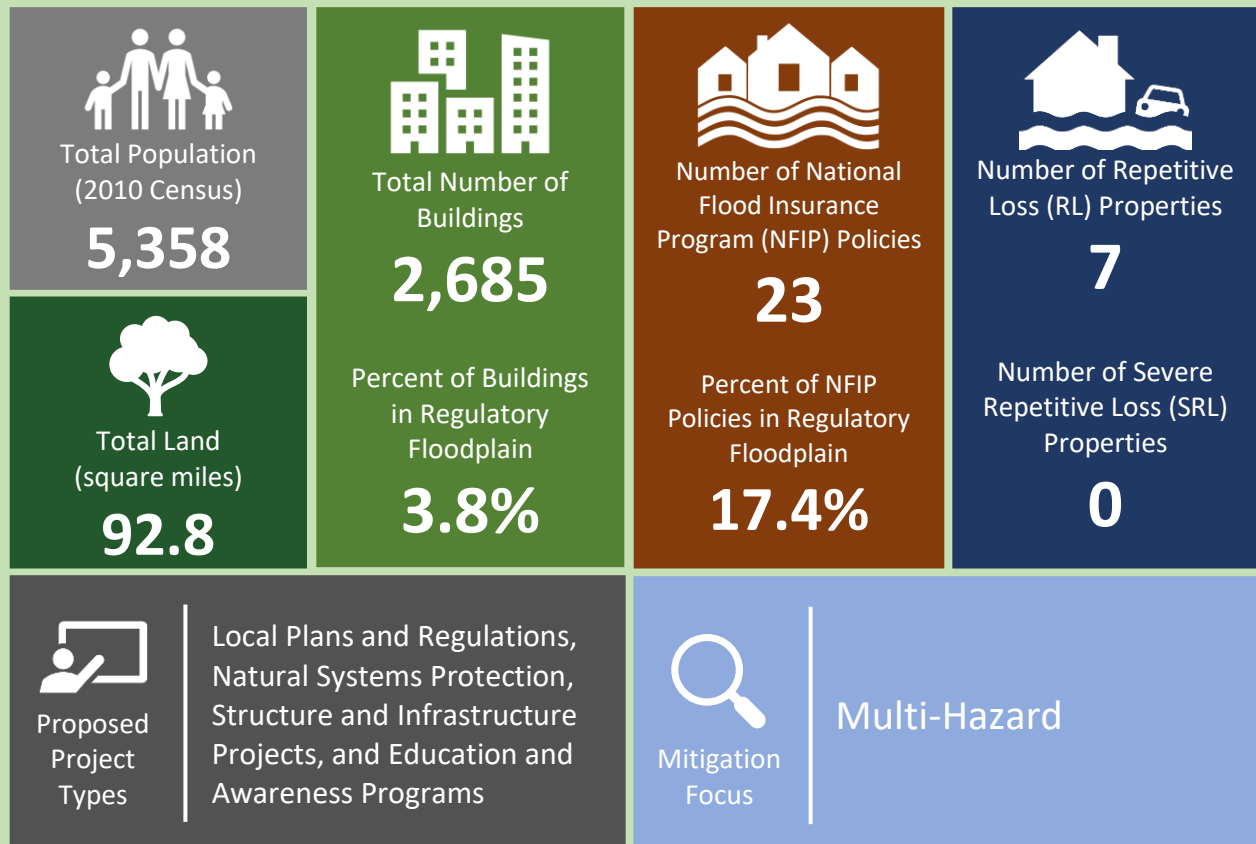




MUNICIPAL ANNEX | Town of Windsor





9.24 Town of Windsor

This section presents the jurisdictional annex for the Town of Windsor. 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 in order 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 Windsor’s risk and vulnerability; the different capabilities utilized in the Town; and an action plan that will be implemented to achieve a more resilient community.

9.24.1 Hazard Mitigation Planning Team

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

Primary Point of Contact	Alternate Point of Contact
Name: Carolyn Price Title: Supervisor Phone Number: 607-655-2026 Address: 124 Main St., Windsor, NY 13865 Email: windsorsupervisor@echoes.net	Name: Ronald B. Lake, PE Title: Engineer Phone Number: 607-343-8937 Address: 282 Ostrum Rd., Kirkwood, NY 13795 Email: Ronbert18@stny.rr.com
Floodplain Administrator	
Name: David Brown Title: Zoning/Code Enforcement Administrator Phone Number: 607-655-3118; 607-725-7101 Address: 124 Main St., Windsor, NY 13865 Email: windsorcode@echoes.net	

9.24.2 Municipal Profile

The Town of Windsor is located on the south border of Broome County, NY and is the largest town in the county. The Town of Windsor has a total area of 92.8 square miles. The Town is bordered by Sanford to the east, Colesville to the north, and Kirkwood to the west. The south town line is the border with Pennsylvania. The Susquehanna River flows southward through the town and New York State Route 17/I-86 crosses the town from east to west. The Town includes the hamlets of Blatchley, Cascade Valley, Damascus, Dunbar, East Windsor, Edson, Flowers, Occanum, South Windsor, State Line, and West Windsor. The Village of Windsor is also located in the Town of Windsor. For more information on the Village of Windsor, refer to Section 9.25. The 2016 estimated population was 5,068, a 5.4% decrease from the 2010 Census (5,358). If the Village of Windsor’s population is included with the Town population, the Town’s 2017 estimated population was 6,114, a 2.5% decrease from the 2010 Census (6,274). The Town anticipates a maintained or slight increase in population in the next five-year period.

Home rule is strong in New York State and thus, each town and village has its own governing body. The Town of Windsor is governed by a Supervisor and four Town Council members.

Data from the 2016 U.S. Census American Community Survey estimates that 3.4% of the town population is five years of age or younger, and 15.0% is 65 years of age or older.

History and Cultural Resources

The Town of Windsor was formed in 1807, the year following the formation of Broome County, NY. The area was first settled by indigenous peoples in 1712 and then again in 1785 by new migrants from New England and





veterans of war. In 1821 the town was reduced in size to create the Towns of Sanford and Colesville; and in 1851 a small part of Windsor was used to help form the Town of Conklin. The Ouaquaga Bridge was placed on the National Register of Historic Places in 2003.

Growth/Development Trends

Table 9.24-1 summarizes major residential/commercial development that as of August 2018 and any known or anticipated major residential/commercial development and major infrastructure development that is likely to be occur within the municipality in the next five years. Refer to the map in 9.24.9 of this annex which illustrates the hazard areas along with the location of potential new development.

Table 9.24-1. Growth and Development

Property or Development Name	Type (e.g. Res., Comm.)	# of Units / Structures	Location (address and/or Parcel ID)	Known Hazard Zone(s)	Description/Status of Development
Recent Development from 2013 to present					
Dollar General	Commercial	1	29 North Road		Completed
Known or Anticipated Development in the Next Five (5) Years					
Town is exploring putting municipal water in West Windsor to allow for possible construction of a hotel and intergenerational housing.					

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

9.24.3 Hazard Event History Specific to the Town of Windsor

Broome County has a history of natural hazard events as detailed in Volume I, Section 5.0 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 Windsor’s history of federally-declared (as presented by FEMA) and significant hazard events (as presented in NOAA-NCEI) is consistent with that of Broome County. Table 9.24-2 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 9.24-2. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	Broome County Designated?	Summary of Event	Municipal Summary of Damages and Losses
October 27 – November 8, 2012	Hurricane Sandy (EM-3351)	Yes	The remnants of Hurricane Sandy moved over the area bringing high winds and precipitation	Though the County was impacted, the Town did not report any damages.
June 26 – July 10, 2013	Severe Storms and Flooding (DR-4129)	Yes	The County was impacted by a series of severe storms and flash flood events.	Ostrander Road and Page Roads were damaged from flooding and were closed. Ostrander Road had to be rebuilt. Costs for reconstruction were \$353,000 for Ostrander Road.
June 14, 2015	Flash Flood	No	A warm front stalled across New York and northern Pennsylvania, providing the focus for repeating clusters of thunderstorms in the	Though the County was impacted, the Town did not report any damages.



Dates of Event	Event Type (Disaster Declaration if applicable)	Broome County Designated?	Summary of Event	Municipal Summary of Damages and Losses
			Finger Lakes and Southern Tier NY regions. A tropical-like airmass was in place allowing for a stripe of 2-4 inches of very heavy rain to fall in a narrow band extending from near Watkins Glen to areas north of Binghamton. Severe flash flooding was encountered with numerous roads and culverts destroyed by raging water.	
March 14-15, 2017	Severe Winter Storm and Snowstorm (DR-4322)	Yes	A record snowfall of between 25 and 35 inches of snow fell. Snowfall rates reached up to 5 inches per hour especially during the onset of the storm. The Greater Binghamton Airport broke an all-time daily snowfall record with 32.4 inches and a 2-day snowfall record of 34.9 inches.	Though the County was impacted, the Town did not report any damages.
July 23-24, 2017	Flash Flood	No	Heavy rain producing thunderstorms developed during the late afternoon and evening hours as an upper level jet stream punched into the area. Widespread thunderstorms produced swaths of 3 to 4 inches of rain in just a few hours' time during the late evening and overnight hours. Rapid rises of area streams and creeks resulted in severe flash flooding.	Though the County was impacted, the Town did not report any damages.
August 2018	Severe Storms and Flooding (DR-4397)	Yes	A slow-moving storm tracked north from New Jersey to northern New York. This system triggered several rounds of heavy rain producing thunderstorms which caused severe flash flooding and major damages in several locations.	Roadways washed out, culverts plugged and washed out, led to roadways closed. One creek jumped its banks and damaged a home. Homes experienced garage flooding. No damage to town property.

Notes:

EM Emergency Declaration (FEMA)





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

9.24.4 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 hazards of greatest concern and risk to the Town of Windsor. For additional vulnerability information relevant to this jurisdiction, refer to Section 5.0.

Hazard Risk Ranking

This section includes 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 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 town or village may have differing degrees of risk exposure and vulnerability compared to Broome County 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 Windsor. The Town of Windsor 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 indicated the following:

- The Town changed the risk ranking of flood from low to high. The Town has experienced recent flooding events in 2006 and 2011 from riverine flooding. The Town also noted numerous localized stormwater flooding issues. Flooding occasional impacts private properties in addition to roadways.
- The Town changed the risk ranking for wildfire from medium to low, noting that wildfire events are rare and that local soils are usually wet, dampening the frequency and severity of wildfire events.

Table 9.24-3. Town of Windsor Municipal Hazard Ranking Input

HAZARD	Drought	Earthquake	Extreme Temperature	Invasive Species	Flood	Severe Storm	Severe Winter Storm	Wildfire
RELATIVE RISK FACTOR	Low	Low	Medium	Low	High	Medium	High	Low

Notes: The scale is based on the following hazard rankings as established in Section 5.3.
 High = Total hazard priority risk ranking score of 5 and above
 Medium = Total hazard priority risk ranking of 3.9 – 4.9
 Low = Total hazard risk ranking below 3.8
 *The municipality changed the initial ranking of this hazard based on event history, municipal experience, and feedback from the municipality

Critical Facilities Flood Risk

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 even, or worst damage scenario. For those that do not meet this criteria, the jurisdiction must identify an action to achieve this level of protection (NYSDHSES 2017).

The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent 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 9.24-4. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 1% Flood Event		Addressed by Proposed Action
		1% Event	0.2% Event	Percent Structure Damage	Percent Content Damage	
None identified						

Source: Hazus 4.2
 - No estimated damages calculated by HAZUS-MH

Identified Issues

The municipality has identified the following vulnerabilities within their community:

- Flood Insurance Rate Maps are out of date
- Not able to maintain drainage systems on private property – Town just maintains their rights-of-way, but residents are responsible for private property.
- There are three repetitive loss properties within the Town.
- Need to purchase, relocate, or elevate structures located in hazard-prone areas including Columbia, Hoadley Hill, East Windsor, and Dutchtown Roads to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority.

Specific areas of concern based on resident response to the Broome County Hazard Mitigation Citizen survey include:

- Town of Windsor is working with NYSEG on trim removal from main lines
- Blatchly Road is a main area of concern in the Town – small stream flooding during rain storms

9.24.5 Capability Assessment

This section identifies the following capabilities of the local jurisdiction:

- Planning and regulatory capability
- Administrative and technical capability
- Fiscal capability
- Community classification
- National Flood Insurance Program
- Integration of mitigation planning into existing and future planning mechanisms

Planning and Regulatory Capability

The table below summarizes the regulatory tools that are available to the Town of Windsor.



Table 9.24-5. Planning and Regulatory Tools

Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
Planning Capability				
Comprehensive Plan	Yes	Local	Town Board	2015 Amendment to September 2006 Comprehensive Plan
Capital Improvements Plan	No	-	-	-
Floodplain Management / Basin Plan	Yes	Local or Watershed	Code	Floodplain Management / Basin Plan
Stormwater Management Plan	No	-	-	-
Open Space Plan	No	-	-	-
Stream Corridor Management Plan	No	-	-	-
Watershed Management or Protection Plan	No	-	-	-
Economic Development Plan	No	-	-	-
Comprehensive Emergency Management Plan	Yes	Local or County	Town Board	Disaster Emergency Preparedness Plan updated 5/2018
Emergency Operation Plan	Yes	Local or County	Town Board	Disaster Emergency Preparedness Plan updated 5/2018
Evacuation Plan	No	-	-	-
Post-Disaster Recovery Plan	Yes	Local	Town Board	Disaster Emergency Preparedness Plan updated 5/2018
Transportation Plan	Yes	Local	Town Board	Disaster Emergency Preparedness Plan updated 5/2018
Strategic Recovery Planning Report	No	-	-	-
Other Plans:	No	-	-	-
Regulatory Capability				
Building Code	Yes	State & Local	Code	Town Code Chapter 53
Zoning Ordinance	Yes	Local	Town Board	Town Code Chapter 93
Subdivision Ordinance	Yes	State	Town Board	Town Code Chapter 79
NFIP Flood Damage Prevention Ordinance	Yes	Federal, State, Local	Town Board	Town Code Chapter 51
NFIP: Cumulative Substantial Damages	No	-	-	-



Tool / Program (code, ordinance, plan)	Do you have this? (Yes/No) If Yes, date of adoption or update	Authority (local, county, state, federal)	Dept. /Agency Responsible	Code Citation and Comments (Code Chapter, name of plan, explanation of authority, etc.)
NFIP: Freeboard	Yes	State, Local	Code	State mandated BFE+2 for all construction, both residential and non-residential
Growth Management Ordinances	No	-	-	-
Site Plan Review Requirements	Yes	Local	Town Board	Town Code Chapters 53 & 79
Stormwater Management Ordinance	No	-	-	-
Municipal Separate Storm Sewer System (MS4)	No	-	-	-
Natural Hazard Ordinance	No	-	-	-
Post-Disaster Recovery Ordinance	No	-	-	-
Real Estate Disclosure Requirement	Yes	State	NYS, Real Estate Agents	NYS mandate, Property Condition Disclosure Act, NY Code - Article 14 §460-467
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	Yes	Local or County	Town Board	Town Code Chapter 68 Noise Control Town Code Chapter 43 Prohibiting the Deposit and/or Tracking of Certain Materials onto Town Highways and Streets

Administrative and Technical Capability

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

Table 9.24-6. Administrative and Technical Capabilities

Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Administrative Capability		
Planning Board	Yes	Planning Board
Mitigation Planning Committee	No	-
Environmental Board/Commission	No	-
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	Board Committee
Maintenance programs to reduce risk	Yes	Highway Department
Mutual aid agreements	Yes	Highway and Sewer
Flood Committee	No	-
Technical/Staffing Capability		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Supervisor/Town Board, Engineer/Planning Board



Resources	Is this in place? (Yes or No)	Department/ Agency/Position
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Code Enforcement Officer & Engineer
Planners or engineers with an understanding of natural hazards	Yes	Code Enforcement Officer/Engineer/Planning Board
NFIP Floodplain Administrator (FPA)	Yes	Code Enforcement Officer
Surveyor(s)	No	-
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	No	-
Scientist familiar with natural hazards	No	-
Warning systems/services	Yes	Reverse 911 by Broome County
Emergency Manager	Yes	Supervisor & Town Board
Grant writer(s)	Yes	Supervisor & Grant Writer
Staff with expertise or training in benefit/cost analysis	Yes	Supervisor
Professionals trained in conducting damage assessments	Yes	Engineer

Fiscal Capability

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

Table 9.24-7. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes
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	No
Incur debt through private activity bonds	No



Financial Resources	Accessible or Eligible to Use (Yes/No)
Withhold public expenditures in hazard-prone areas	No
Other federal or state Funding Programs	Yes
Open Space Acquisition funding programs	No
Other	No

Community Classifications

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

Table 9.24-8. Community Classifications

Program	Do you have this? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	NP	-	-
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	N/A	-	-
Natural disaster/safety programs in/for schools	No	-	-
Organizations with mitigation focus (advocacy group, non-government)	Yes	Fire Companies	-
Public education program/outreach (through website, social media)	No	-	-
Public-private partnership initiatives addressing disaster-related issues	No	-	-
Other	No	-	-

Note:

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

The classifications listed above relate to the community’s ability to provide effective services to lessen its vulnerability to the 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 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 (<https://www.isomitigation.com/bcegs/>)
- The ISO Mitigation online ISO’s Public Protection website at <https://www.isomitigation.com/ppc/>
- New York State Climate Smart Communities (<http://www.dec.ny.gov/blue/56876.html>)
- The National Weather Service Storm Ready website at <https://www.weather.gov/stormready/communities>
- The National Firewise Communities website at <http://firewise.org/>

Self-Assessment of Capability

The table below provides an approximate measure of the Town of Windsor capability to work in a hazard-mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9.24-9. Self-Assessment Capability for the Municipality

Area	Degree of Hazard Mitigation Capability		
	Limited (If limited, what are your obstacles?)	Moderate	High
Planning and regulatory capability		X	
Administrative and technical capability		X	
Fiscal capability		X	
Community political capability		X	
Community resiliency capability			X
Capability to integrate mitigation into municipal processes and activities		X	

National Flood Insurance Program

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

NFIP Floodplain Administrator (FPA)

David Brown, Zoning/Code Enforcement Administrator

National Flood Insurance Program (NFIP) Summary

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

Table 9.24-10. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties	# SRL Properties	# Policies in the 1% Flood Boundary
Windsor (T)	23	57	\$1,371,857	7	0	4

Source: FEMA 2018

Notes: Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and current as of May 31, 2018. The total number of repetitive loss properties does not include severe repetitive loss properties

RL Repetitive Loss; SRL Severe Repetitive Loss





Resources

The Town of Windsor is assisting in the update of flood plain (FIRM) maps at the Jurisdictional Level. Specific assistance is being provided by attending map update meetings held by FEMA, NYSDEC, and USGS; and by identifying flood-prone areas outside of currently designated flood areas.

Compliance History

The Town's most recent compliance audit (community assistance visit [CAV]) took place on July 13, 2016. The Town of Windsor maintains compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. 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 below.

Regulatory

Flood Damage Prevention Ordinance: The Flood Damage Prevention Ordinance (Chapter 51 of the municipal code) was adopted to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction
- Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters;
- Control filling, grading, dredging and other development which may increase erosion or flood damages;
- Regulate the construction of flood barriers which will unnaturally divert flood waters, or which may increase flood hazards to other lands, and;
- Qualify and maintain for participation in the National Flood Insurance Program.

The objectives of the ordinance are:

- To protect human life and health
- To minimize expenditure of public money for costly flood control projects;
- To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- To minimize prolonged business interruptions;
- To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone, sewer lines, streets and bridges located in areas of special flood hazard;
- To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas
- To provide that developers are notified that property is in an area of special flood hazard; and,
- To ensure that those who occupy the area of special flood hazard assume responsibility for their actions.

The Town of Windsor's Flood Damage Prevention Ordinance meets the minimum federal and state NFIP requirements.



Integration of Hazard Mitigation into Existing and Future Planning Mechanisms

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, each community was surveyed to obtain a better understanding of their community's progress in plan integration. A summary is provided below. In addition, the community identified specific integration activities that will be incorporated into municipal procedures, which is also indicated below.

Planning

Existing Integration

Comprehensive Plan: The Town of Windsor's Comprehensive Plan was adopted in 2006 and amended in 2015. The Plan refers to the Countywide Hazard Mitigation Plan.

Comprehensive Emergency Management Plan: The Town of Windsor's Comprehensive Emergency Management Plan does not refer to the Countywide Hazard Mitigation Plan. The Town updates the Comprehensive Emergency Management Plan on an annual basis.

Disaster Emergency Preparedness Plan: The Town of Windsor maintains a Post Disaster Recovery Plan within the Disaster Emergency Preparedness Plan.

Broome County Hazard Mitigation Plan: The Town continues to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0.

The Town of Windsor doesn't have a Stormwater Management Plan, Re-Development Plan, Growth Plan, Economic Development Plan, Open Space Plan, Watershed or Stream Corridor Management Plan, Local Waterfront Revitalization Plan, Continuity of Operations/Continuity of Government (COOP/COG) Plans, , Post-Disaster Redevelopment Plan, Strategic Recovery Plan, resilience plan/strategy, or Climate Adaptation Plan/strategy.

Opportunities for Future Integration

The Town of Windsor could include natural hazards and resilience themes in updates to planning documents as well as refer to the Countywide Hazard Mitigation Plan.

Regulatory and Enforcement (Ordinances)

Existing Integration

The Town of Windsor's municipal zoning, subdivision regulations, and site plan regulations consider natural hazard risk. The Planning Board and/or ZBA is provided with the Hazard Mitigation Plan and SEQRA to guide their decisions with respect to natural hazard risk management.

Zoning Ordinance: The Zoning Ordinance for the Town of Windsor (Chapter 93 of the municipal code) was established in order to encourage the most appropriate use of land and protect and conserve the value of property; and promote the health, safety, morals and general welfare of the community; to regulate the location, use and occupancy of buildings and the use of land for trade, industry, residence and other uses; to regulate and limit the height and bulk of buildings and other structures; to regulate and determine the area of yard and other open spaces; to regulate the density of population; and for said purpose to divide the town into districts; to provide for its administration and enforcement; and to prescribe penalties for the violation of its provisions. The Town is working on an amendment of the ordinance to ensure developments served by private wells have adequate well recharge area.



Subdivision of Land Ordinance: The Subdivision of Land Ordinance for the Town of Windsor (Chapter 79 of the municipal code) was established to ensure that land subdivisions are considered as part of a plan for the orderly, efficient and economical development of the town. Land to be subdivided shall be of such character that it can be used for building purposes without danger to health or peril from fire, flood, drainage or other menace to neighboring properties or the public health, safety and welfare.

Opportunities for Future Integration

The Town of Windsor will consider including natural hazards and resilience themes during any updates to local ordinances.

Operational and Administration

Existing Integration

Planning Board: The Town of Windsor's Planning Board works to ensure compliance with Local, State, and Federal Laws.

Zoning Board of Appeals: The Windsor Zoning Board of Appeals is a five-member board whose members serve five-year terms. The Board is responsible for the granting of variance and issuance of special use permits. The Board works to ensure compliance with Local, State, and Federal Laws.

National Incident Management System (NIMS): The Town conducts training in the National Incident Command System (ICS), under the National Incident Management System (NIMS).

Vegetation Management: The Town of Windsor continues to maintain programs to keep trees from threatening lives, property, and public infrastructure during storm events.

First Responder Site Plan Review: The Town continues to encourage fire fighters and emergency service providers to review site plans to ensure that response and capacity exists to support development, specifically development of tall buildings in a rural area without access to ladder equipment.

Non-Structural Flood Mitigation: The Town is considering non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as repetitive loss properties, such as acquisition/relocation, or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners. The Town is working with homeowners who express interest in mitigation for their properties and has assisted with the elevation of several residences.

Retrofitting/Removal of Structures from Hazard Prone Areas: Where appropriate, the Town of Windsor supports the retrofitting, 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. The Village works to identify facilities that are viable candidates for each strategy based on cost-effectiveness. Implementation of these actions are based on available funding. Specific areas within the Town which are hazard-prone include: Columbia, Hoadley Hill, East Windsor, and Dutchtown Roads. The Town is working with homeowners who express interest in mitigation for their properties and has assisted with the elevation of several residences.

Archive Elevation Certificates: The Town will continue to obtain and archive elevation certificates.

Post-Disaster Procedures: The Town is identifying and developing agreements with entities that can provide support with FEMA/SOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/SOEM paperwork compilation, submissions, record-keeping.



Damage Assessment Training: The Town works with regional agencies (i.e. County and SOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).

Structure/Facility Inventories/Datasets: The Town participates in regional, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA’s Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including:

- Support the performance of enhanced risk and vulnerability assessments for hazards including flooding, earthquake, wind, and land failure.
- Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive emergency management, debris management, and land use.

The Town of Windsor does not have a municipal planner or contract planning firm. The Town does not have any other Boards or Committees that include functions with respect to managing natural hazard risk. NFIP Floodplain Management functions are performed by the Codes department. The Town has staff or contracts with firms that perform Substantial Damage Estimates and have experience in preparing grant applications for mitigation projects but does not have staff or contract with firms that have experience with developing Benefit-Cost Analysis. Staff receive training/continuing professional education which supports natural hazard risk reduction, but no staff have job descriptions that specifically include identifying and/or implementing mitigation projects/actions or other efforts to reduce natural hazard risk. The Code Department participates in associations, organizations, groups or other committees that support natural hazard risk reduction and build hazard management capabilities. The Town does not have other hazard management programs in place.

Opportunities for Future Integration

The Town could contract with firms that have experience with developing Benefit-Cost Analysis.

Funding

Existing Integration

The Town of Windsor does not include line items for mitigation projects in the municipal/operating budget and does not have a Capital Improvements Budget. The Town has been awarded grant funds from the FEMA disaster grants for mitigation projects.

Opportunities for Future Integration

The Town could allocate funding from the municipal budget and continue to apply for grant funding for mitigation projects.

Education and Outreach

Existing Integration

The Town of Windsor operates a municipal website (<http://www.windsorny.org/>) which has community news and information. The website includes a link to NY Alert. The Town provides public outreach on emergency preparedness using state provided materials. The Town of Windsor conducts and facilitates community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction:



- Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages.
- Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation.
- Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures.
- Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding.

Opportunities for Future Integration

The Town will continue public education efforts.

Sheltering, Evacuation, and Temporary Housing

Temporary housing, evacuation routes, and sheltering measures must 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.

Refer to Section 4.6.5 of Volume 1 of this plan for a description of resources identified by the county to support municipalities with the identification of evacuation, sheltering, and temporary and permanent housing.

Temporary and Permanent Housing

The Town of Windsor has not identified potential sites in your municipality for the placement of temporary housing for residents displaced by a disaster or potential sites within your municipality suitable for relocating houses of the floodplain and/or building new homes once properties in the floodplain are acquired.

Evacuation and Sheltering Needs

The Town of Windsor has designated the following emergency shelters:

- Bell Elementary School: 15 Golden St, Kirkwood, NY 13795. The school is ADA compliant.
- Weeks Elementary School: 440 Foley Rd., Windsor, NY 13865. The school is ADA compliant.
- A.F. Palmer Elementary/Middle School: 213 Main St., Windsor, NY 13865. The school is ADA compliant.
- Windsor Central High School: 1191 Route 79 Windsor, NY 13865. The school is ADA compliant.

The Town has not identified evacuation routes or evacuation procedures.

9.24.6 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 2013 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 9.24-11. Status of Previous Mitigation Actions

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
1.	Provide flood mitigation measures to Palmer School to minimize the damages due to flooding.	Flood		Town Floodplain Administrator	No Progress	Cost		1. Discontinue 2. 3. The school is located in the Village of Windsor and the Town does not have jurisdiction over the school
2. (1)	Continue training in the National Incident Command System (ICS), under the National Incident Management System (NIMS).	Flood		Town Board	Ongoing Capability	Level of Protection		1. Discontinue 2. 3. Ongoing capability
3 (2).	Develop and implement or maintain and enhance programs to keep trees from threatening lives, property, and public infrastructure during storm events.	Severe Storm		Town DPW	Ongoing Capability	Damages Avoided; Evidence of Success		1. Discontinue 2. NYSEG is working on this now; Highway Dept. works on tree trimming and will hire tree companies as well to remove larger trees 3. Ongoing capability
4. (3)	Retrofit vulnerable critical facilities including DPW facilities to include backup and redundant power sources to maintain facility operations during hazard events for which they are exposed.	All		Town Board, DPW	No Progress	Cost		1. Include in 2018 HMP 2. 3.
5. (4)	Assist in the update of flood plain (FIRM) maps – Jurisdictional Level. Specific assistance can be provided in the area of attending map update meetings held by FEMA,	Flood		FEMA Town Floodplain Manager	Ongoing Capability	Level of Protection		1. Discontinue 2. 3. Ongoing capability



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						of Success		
	NYDEC and USGS; and identification of flood-prone areas outside of currently designated areas							
6. (5)	Continue participation in the National Flood Insurance Program (NFIP).	Flood		Town Floodplain Manager	Ongoing Capability	Cost		1. Discontinue 2. 3. Ongoing capability
7. (6)	Monitor condition and develop plan for reconstruction of stream bank restoration in the following areas: Grove Street (upper end); Blatchley and Farr Road area; Honey Hollow Road; and Saxby Road	Flood		Town Board DPW	In Progress	Level of Protection		1. Include in 2018 HMP 2. 3. Grove Street done – rip rap and drainage were installed; paid by FEMA grant; but only completed on the Town side
8. (7)	Replace pipes and provide additional cobbles/rip rap to prevent further undermining of a road on Ostrander Road and elsewhere as needed.	Flood		Town Board DPW	Complete	Damages Avoided; Evidence of Success	Cost: \$150,000 Level of Protection: 100-year flood No further damage; no more flooding	1. Discontinue 2. FEMA project 3. Complete
9. (8)	Encourage review of local zoning ordinances and site plans by firefighting companies to ensure fire-fighting capacity exists at the local level to support development (i.e. tall buildings in a rural area w/o access to ladder equipment).	All		Town Fire Dept	Ongoing Capability	Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
10. (9)	Encourage amendment of zoning ordinance to ensure developments served by	Drought		Town Board and Code Enforcement	Ongoing Capability	Cost		1. Discontinue 2.



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Damages Avoided; Evidence of Success		
	private wells have adequate well recharge area					Damages Avoided; Evidence of Success		3. Ongoing capability
11. (10)	Consider non-structural flood hazard mitigation alternatives for at risk properties within the floodplain, including those that have been identified as repetitive loss properties, such as acquisition/relocation, or elevation depending on feasibility. The parameters for feasibility for this initiative would be: funding, benefits versus costs and willing participation of property owners.	Flood		Town Board Flood Plain Manager	Ongoing Capability	Cost		1. Discontinue Work with homeowners who express interest in mitigated their properties. Town has assisted with the elevation of several residential homes. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		
Flood-1	Purchase, relocate, or elevate structures located in hazard-prone areas including Columbia, Hoadley Hill, East Windsor, and Dutchtown Roads to protect structures from future damage, with repetitive loss and severe repetitive loss properties as priority. Phase 1: Identify appropriate candidates for relocation based on cost-effectiveness versus retrofitting. Phase 2: Where relocation is determined to be a viable option, work with	Flood		Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from BCPD, NYSOEM, FEMA	Ongoing Capability	Cost		1. Discontinue Work with homeowners who express interest in mitigated their properties. Town has assisted with the elevation of several residential homes. 3. Ongoing capability
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Cost	Level of Protection	
	property owners toward implementation of that action based on available funding from FEMA and local match availability.							
Flood-2	Maintain compliance with and good-standing in the NFIP including adoption and enforcement of floodplain management requirements (e.g. 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 below.	Flood		Municipality (via Municipal Engineer/NFIP Floodplain Administrator) with support from NYSOEM, FEMA	Ongoing Capability	Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability
Flood-3	Conduct and facilitate community and public education and outreach for residents and businesses to include, but not be limited to, the following to promote and effect natural hazard risk reduction: <ul style="list-style-type: none"> Provide and maintain links to the HMP website, and regularly post notices on the County/municipal homepage(s) referencing the HMP webpages. 	Flood		Municipality with support from Planning Partners, BCPD, NYSOEM, FEMA	Ongoing Capability	Damages Avoided; Evidence of Success		1. Discontinue 2. 3. Ongoing capability



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	<ul style="list-style-type: none"> Prepare and distribute informational letters to flood vulnerable property owners and neighborhood associations, explaining the availability of mitigation grant funding to mitigate their properties, and instructing them on how they can learn more and implement mitigation. Use email notification systems and newsletters to better educate the public on flood insurance, the availability of mitigation grant funding, and personal natural hazard risk reduction measures. Work with neighborhood associations, civic and business groups to disseminate information on flood insurance and the availability of mitigation grant funding. 							
Flood-4	Obtain and archive elevation certificates	Flood		NFIP Floodplain Administrator	Ongoing Capability	Cost		1. Discontinue
						Level of Protection		2.
						Damages Avoided; Evidence of Success		3. Ongoing capability
Flood-5	Continue to support the implementation, monitoring, maintenance, and updating of this Plan, as defined in Section 7.0	Flood		Municipality with support from Planning Partners, BCPD, NYSOEM, FEMA	Ongoing Capability	Cost		1.
						Level of Protection		2.
						Damages Avoided; Evidence		3.



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						of Success	Cost	
Flood-6	Complete ongoing updates of Comprehensive Emergency Management Plans	Flood		Municipality with support from NYSOEM	Ongoing Capability	Level of Protection	Damages Avoided; Evidence of Success	1. Discontinue 2. Update the municipal CEMP annually 3. Ongoing capability
Flood-7	Create/Enhance/Maintain Mutual Aid agreements with neighboring communities for continuity of operations	All Hazards		Municipality with support from County, NYSOEM, FEMA and surrounding communities	Ongoing Capability	Level of Protection	Damages Avoided; Evidence of Success	1. Discontinue 2. 3. Ongoing capability
Flood-8	Identify and develop agreements with entities that can provide support with FEMA/SOEM paperwork after disasters; qualified damage assessment personnel – Improve post-disaster capabilities – damage assessment; FEMA/SOEM paperwork compilation, submissions, record-keeping	Flood		Municipality with support from County, NYSOEM and FEMA	Ongoing Capability	Level of Protection	Damages Avoided; Evidence of Success	1. Discontinue 2. 3. Ongoing capability
Flood-9	Work with regional agencies (i.e. County and SOEM) to help develop damage assessment capabilities at the local level through such things as training programs, certification of qualified individuals (e.g. code officials, floodplain managers, engineers).	Flood		Municipality with support from County, NYSOEM and FEMA	Ongoing Capability	Level of Protection	Damages Avoided; Evidence of Success	1. Discontinue 2. 3. Ongoing capability
Flood-10		Flood				Cost		1. Discontinue



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
						Level of Protection		
	<p>Participate in local, county and/or state level projects and programs to develop improved structure and facility inventories and hazard datasets to support enhanced risk assessment efforts. Such programs may include developing a detailed inventory of critical facilities based upon FEMA’s Comprehensive Data Management System (CDMS) which could be used for various planning and emergency management purposes including:</p> <ul style="list-style-type: none"> • Support the performance of enhanced risk and vulnerability assessments for hazards of concern. • Support state, county and local planning efforts including mitigation (including updates to the State HMP), comprehensive emergency management, debris management, and land use. <p>Improved structural and facility inventories could incorporate flood, wind and seismic-specific parameters (e.g. first floor elevations, roof types, structure types based on FEMA-154 “Rapid Visual Screening of Buildings for Potential Seismic</p>			Hazard Mitigation Plan Coordinator	Ongoing Capability	Level of Protection		2.
						Damages Avoided; Evidence of Success		3. Ongoing capability



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	Hazards” methodologies). It is recognized that these programs will need to be initiated and supported at the County and/or State level, and will require training, tools and funding provided at the county, state and/or federal level.							
Severe Storm-1	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,	Severe Storm		Municipality with support from County, NYSOEM and FEMA	No Progress	Cost		1. Include in the 2018 HMP 2. Consider becoming StormReady community 3.
						Level of Protection		
						Damages Avoided; Evidence of Success		



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		Next Steps 1. Project to be included in 2018 HMP or Discontinue 2. If including action in the 2018 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	monitoring hydrometeorological data, providing annual weather safety talks, train weather spotters, create a formal hazardous weather plan, host annual visits by NWS to communities, etc.							
Earthquake-1	Obtain training and conduct rapid screening assessment of critical facilities for earthquake vulnerability.	Earthquake		Municipal Emergency Management, Fire, PD with support from County, NYSOEM	No progress	Cost		1. Discontinue 2. 3. Earthquake is a not concern for the community at this time
					Level of Protection			
					Damages Avoided; Evidence of Success			
Earthquake-2	Develop a post-earthquake management plan to address building safety inspections, gas leaks, and other elements to protect public safety.	Earthquake		Municipal Emergency Management, Fire, PD with support from County, NYSOEM	No Progress	Cost		1. Discontinue 2. 3. Earthquake is a not concern for the community at this time
					Level of Protection			
					Damages Avoided; Evidence of Success			



Completed Mitigation Initiatives Not Identified in the Previous Mitigation Strategy

The Town of Windsor has identified the following mitigation projects/activities that have also been completed but were not identified in the previous mitigation strategy in the 2013 Plan:

- The Town of Windsor has performed ongoing maintenance projects to reduce the impact of flooding.
- A bridge that collapsed which prevented access to a 41-unit mobile home park was addressed through construction of a new bridge.
- Damages from a flooding event to Grove Street were repaired. The road was repaved, and new culverts were installed.
- **Building Resiliency (2016):** The Broome County Department of Planning prepared Building Resiliency to document resiliency projects municipalities have completed. The Town of Windsor identified the following completed projects (as of 2016):
 - The Broome County Department of Public Works repaired county-owned bridges and culverts in the Town of Windsor.
 - The Broome County Soil and Water Conservation District performed streambank stabilization and stream/field debris removal in the Town of Windsor.

Proposed Hazard Mitigation Initiatives for the Plan Update

The Town of Windsor participated in a mitigation action workshop on October 17, 2018 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 9.24-12 summarizes the comprehensive-range of specific mitigation initiatives the Town of Windsor 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 9.24-13 provides a summary of the prioritization of all proposed mitigation initiatives for the Plan update.



Table 9.24-12. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem	Description of Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
T. Windsor-1 (former 7)	Reconstruction and restoration of stream bank in the Blatchley Road area	1	Flood, Severe Storm	Streak bank is deteriorated. As the bank collapses, it erodes towards Blatchley Road and puts a home at risk of damages.	The Town will rebuild the collapsed bank, using rock. The Town will work NYS DEC to determine additional actions.	No	Yes, permitting.	Within 2 years	Town Board, DPW	\$113,000 for machinery and materials.	Problems with stream bank addressed. Stream bank maintained.	Town budget, HMGP	High	LPR, NSP	NR
T. Windsor-2 (former 4)	Backup Power for Highway Department facility	1, 4, 5	All	The Town Highway Department facility, located at 174 Chapel St., does not have back-up power to run the facility in the event of a power outage. It serves as office space for Highway Department staff and storage for municipal vehicles. When there is a power outage, the building and staff have limited resources to fully function. This can impact the services the Department provides to its residents and	Purchase and install a permanent backup generator to allow continuity of operations at the Highway Department. This would benefit both the town and village as the town supports the village.	Yes	No	Within 3 months	Highway Superintendent with support from Town Board	\$70,000	Allows for continuity of operations – need backup power to fuel municipal vehicles; provide services to answer the phones, computer, etc.	FEMA HMGP and PDM, municipal budget	Medium	SIP	PP



Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem	Description of Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				may restrict the type of response they can provide during emergencies. A generator is needed to power the entire facility and allow continuity of operations for the Highway Department.											
T. Windsor-3	Communication system upgrades	4	All Hazards	The Town communication system for emergency responders and public works is not functional in several areas, causing reliance on spotty cell phone reception and landlines.	The Town will upgrade communications system to ensure it is functional throughout the Town. The Town will work with Broome County to ensure system is compatible with County system.	No	None	Within 4 years	Town Board, DPW	\$20,000-50,000	Consistent comm. System for use during hazard events	Town Budget	High	LPR	PR, ES
T. Windsor-4	Cell towers for expansion of cell phone coverage	4	All Hazards	Cell phone reception within the Town is spotty. This poses a risk to communication when the Town communications system is not functional.	The Town will work with area cell phone providers to install additional small cell towers (roughly 100-120 feet) to improve coverage and reliability.	No	None	Within 5 years	Town Board, local cell phone providers	\$35,000 per tower	Reliable cell phone reception throughout the Town for communication during hazard events	Municipal budget	High	LPR	ES
T. Windsor-5 (former Severe Storm-1)	Enhance the County/community resilience to severe storms (incl. severe winter storms) by joining the NOAA	1, 2	Severe Storm	"StormReady" communities are better prepared to save lives from the onslaught of	Participation in the NOAA "StormReady" program shall include providing information on the	Yes	None	Within 5 years	Municipality with support from County, NYSOEM and FEMA	<\$10,000	Public is educated on severe storms and better alerted to	Municipal budget	Medium	LPR, EAP	PI, ES





Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem	Description of Solution	Critical Facility (Yes/No)	Environmental and Historic Preservation (EHP) Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
	“Storm Ready” program and supporting communities in joining the program.			severe weather through advanced planning, education and awareness.	“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 data, providing annual weather safety talks, train weather spotters, create a formal hazardous weather plan, host annual visits by NWS to communities, etc.						forecast severe weather.				
T. Windsor-6	Update the NFIP Flood Damage Prevention Ordinance	1	Flood	The current flood damage prevention ordinance (1988) does not include NYS freeboard requirements.	Flood Damage Prevention Ordinance will be updated to	No	None	Within 1 year	Floodplain Administrator	<\$100	Higher building standards and lower flood exposure	Municipal budget	High	LPR	PR





Notes:

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

*Does this mitigation initiative reduce the effects of hazards on new and/or existing buildings and/or infrastructure? Not applicable (N/A) is inserted if this does not apply.

Acronyms and Abbreviations:

CAV	Community Assistance Visit
CRS	Community Rating System
DPW	Department of Public Works
FEMA	Federal Emergency Management Agency
FPA	Floodplain Administrator
HMA	Hazard Mitigation Assistance
N/A	Not applicable
NFIP	National Flood Insurance Program
OEM	Office of Emergency Management

Potential FEMA HMA Funding Sources:

FMA	Flood Mitigation Assistance Grant Program
HMGP	Hazard Mitigation Grant Program
PDM	Pre-Disaster Mitigation Grant Program

Timeline:

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.

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

Critical Facility:


- Yes  - Critical Facility located in 1% floodplain



Table 9.24-13. 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	Total	High / Medium / Low
T. Windsor-1 (former 7)	Reconstruction and restoration of stream bank in the Blatchley Road area	1	1	1	1	1	0	0	1	1	1	1	1	1	1	12	High
T. Windsor-2 (former 4)	Backup Power for Highway Department facility	0	1	1	1	1	1	0	0	1	0	0	0	1	1	8	Medium
T. Windsor-3	Communication system upgrades	1	0	1	1	1	1	0	1	1	1	1	0	1	1	11	High
T. Windsor-4	Cell towers for expansion of cell phone coverage	1	0	1	1	1	0	0	1	1	1	1	0	1	1	10	High
T. Windsor-5 (former Severe Storm-1)	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.	1	0	0	0	1	1	1	1	0	0	1	0	1	1	8	Medium
T. Windsor-6	Update the NFIP Flood Damage Prevention Ordinance	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High

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



9.24.7 Future Needs To Better Understand Risk/Vulnerability

None at this time.

9.24.8 Staff and Local Stakeholder Involvement in Annex Development

The Town of Windsor 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, Engineer, Zoning, and Code Enforcement departments. The Supervisor represented the community on the Broome 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.

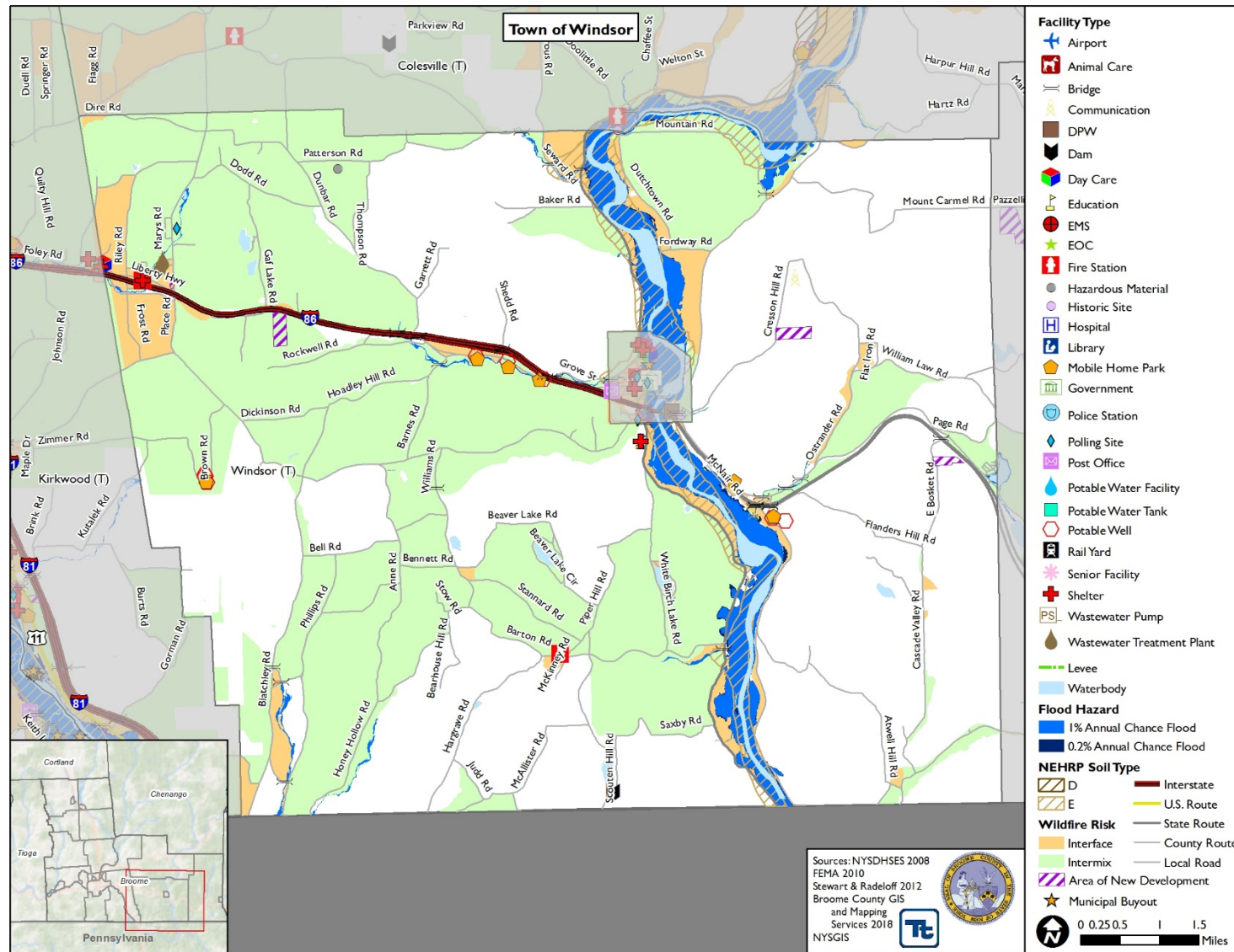
Additional documentation on the municipality's planning process through Planning Partnership meetings is included in Section 3 (Planning Process) and Appendix C (Meetings).

9.24.9 Hazard Area Extent and Location

Hazard area extent and location maps have been generated for the Town of Windsor that illustrate 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 are 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 Windsor has significant exposure. A map of the Town of Windsor hazard area extent and location is provided on the following page. This map indicates the location of the regulatory floodplain as well as identified critical facilities within the municipality.



Figure 9.24-1. Town of Windsor Hazard Area Extent and Location Map





Town of Windsor Action Worksheet			
Project Name:	Reconstruction and restoration of stream bank in the Blatchley Road area		
Project Number:	T. of Windsor-1		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood, Severe Storm		
Description of the Problem:	The stream bank along Blatchley Road is deteriorated. As the stream bank collapses, it erodes towards Blatchley Road and puts a private residence at risk of damages.		
Action or Project Intended for Implementation			
Description of the Solution:	The Town will rebuild the collapsed bank, using rock. The Town will work NYS DEC to determine additional actions and collaborate with neighboring municipalities to ensure coordinated strategy.		
Is this project related to a Critical Facility?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	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)			
Level of Protection:	Stream bank strengthened.	Estimated Benefits (losses avoided):	Stream bank strengthened and maintained.
Useful Life:	30 years	Goals Met:	1
Estimated Cost:	\$113,000 for machinery and materials.	Mitigation Action Type:	Natural Systems Protection
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 2 years
Estimated Time Required for Project Implementation:	6 months	Potential Funding Sources:	Town budget, HMGP
Responsible Organization:	Town Board, DPW	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Problem continues.
	Buyout private property	\$200,000	Roadway still at risk
	Dredge the creek	\$300,000	Permitting issues, may not solve problem.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Reconstruction and restoration of stream bank in the Blatchley Road area	
Project Number:	T. Windsor-1	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Protection of private residence
Property Protection	1	Protection of private residence and Blatchley Road.
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	0	Project will likely require permitting, multi-jurisdictional efforts.
Fiscal	0	Project would require grant funding for completion.
Environmental	1	Project will restore stream bank.
Social	1	
Administrative	1	
Multi-Hazard	1	Flood, Severe Storm
Timeline	1	
Agency Champion	1	Town Board, DPW
Other Community Objectives	1	
Total	12	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Backup Power for Highway Department facility		
Project Number:	T. Windsor-2		
Risk / Vulnerability			
Hazard(s) of Concern:	All hazards		
Description of the Problem:	The Town Highway Department facility, located at 174 Chapel St., does not have back-up power to run the facility in the event of a power outage. It serves as office space for Highway Department staff and storage for municipal vehicles. When there is a power outage, the building and staff have limited resources to fully function. This can impact the services the Department provides to its residents and may restrict the type of response they can provide during emergencies. A generator is needed to power the entire facility and allow continuity of operations for the Highway Department.		
Action or Project Intended for Implementation			
Description of the Solution:	Purchase and install a permanent backup generator to allow continuity of operations at the Highway Department. This would benefit both the town and village as the town supports the village.		
Is this project related to a Critical Facility?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	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)			
Level of Protection:	Allows for continuity of operations – need backup power to fuel municipal vehicles; provide services to answer the phones, computer, etc.	Estimated Benefits (losses avoided):	Allows for continuity of operations – need backup power to fuel municipal vehicles; provide services to answer the phones, computer, etc.
Useful Life:	10 years	Goals Met:	1, 4, 5
Estimated Cost:	\$70,000	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	Medium	Desired Timeframe for Implementation:	6 months
Estimated Time Required for Project Implementation:	With 3 months	Potential Funding Sources:	FEMA HMGP and PDM, municipal budget
Responsible Organization:	Highway Superintendent with support from Town Board	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation, Emergency Management
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Install solar panels	\$50,000+	Intermittent power source; takes too much space that the facility does not have
	Purchase several small generators	\$5,000+	Not enough staff to hook up when needed; takes away from actual work needed during storm; cannot run for longer power outages
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			





Action Worksheet		
Project Name:	Backup Power for Highway Department facility	
Project Number:	T. Windsor-2	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Provide support to residents who need help during power outages
Property Protection	1	All building to function during power outages
Cost-Effectiveness	1	
Technical	1	
Political	1	
Legal	1	The Town has the legal authority to complete the project
Fiscal	0	Need grant funding
Environmental	0	
Social	0	
Administrative	0	
Multi-Hazard	1	All hazards
Timeline	1	Short Term – complete within 5 years when funding is received
Agency Champion	0	
Other Community Objectives	0	
Total	8	
Priority (High/Med/Low)	Medium	