

Town of West Monroe

## **Jurisdictional Annex**

### **Town of West Monroe**

#### **1.0 Contacts**

Primary and secondary contacts regarding this plan are identified as follows:

- Vern Sundet – Town Supervisor  
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Phone: (315) 676-3521  
Email: [supervisor@townofwestmonroe-ny.us](mailto:supervisor@townofwestmonroe-ny.us)
- Kevin Davis – Town Highway Superintendent  
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Town Website: <https://townwestmonroe.digitaltowpath.org:10358/content/>

#### **2.0 Municipal Profile**

##### Population

The 2016 American Community Survey estimated that 4,205 people live in the Town of West Monroe. The Town's population has decreased since the 2000 Census (4,428) by 5.0% (U.S. Census Bureau, 2016).

##### Location

The Town of West Monroe is located in southern Oswego County and is bordered by Oneida Lake to the south, the Town of Hastings to the west, the Town of Parish to the north, and the Town of Constantia to the east. Interstate 81 and State Route 49 provide direct access to the Town.

##### Brief History

The Town of West Monroe was formed in 1839 from Scriba's patent, and is the youngest Town in Oswego County. Located on the shore of Oneida Lake, the Town was originally occupied by the Oneida Nation for fishing and hunting purposes. Post-European settlement, logging was the primary industry in the Town, due to the vast forested cover. Agriculture, particularly dairy farms, became more significant as land was cleared. A number of crops, dairy

products, and meat were produced. The Ontario & Western Railroad was constructed through the Town in 1869 and a station was located in West Monroe, which spurred development. Agriculture remained the primary industry in the Town and many products were shipped via rail (Gearsbeck and Mount, 2016).

### Governing Body

The Town of West Monroe is governed by a five (5) member Town Board, led by the Supervisor.

### Future Growth

The Town of West Monroe is seeking stable growth. Since the last County HMP (2012), the Town has had no new commercial or residential developments.

## **3.0 Hazard Vulnerabilities and Ranking**

### *3.1. Risk Assessment*

The following scale was developed to determine hazard vulnerability for the jurisdiction. Each event was given a ranking from one (1) through three (3) for the severity of impact based on extent, onset warning, impact in damages and injury, and frequency: three (3) represents the greatest impact (large area, no warning, severe damage, and regular occurrence); two (2) represents moderate impact (several locations, hours of warning, moderate damage, and infrequent occurrence); and (1) represents low impact (one location, days of warning, minor damage, and rare occurrence). The scores for each of these four (4) categories were used to assign an overall vulnerability for each hazard, as follows:

- Low: 5 or less
- Moderate: 6 to 8
- High: 9 or greater

Table 1: Hazard Vulnerability by Event						
Hazard Event	Extent	Onset	Impact (Damages and Injury)	Frequency	Vulnerability Rank	Jurisdiction Rank
Ice Storm	3	1	3	2	High	1
Flood	2	2	2	3	High	2
Coastal Storm	3	1	3	2	High	3
Severe T-Storm/Wind/Tornado	3	1	3	3	High	4
Severe Winter Storm	3	1	2	3	High	5

Table 1: Hazard Vulnerability by Event						
Hazard Event	Extent	Onset	Impact (Damages and Injury)	Frequency	Vulnerability Rank	Jurisdiction Rank
Infestation	3	1	1	1	Moderate	6
Extreme Temps	3	1	1	3	Moderate	7
Drought	3	1	2	1	Moderate	8
Wildfire	2	3	2	1	Moderate	9
Ice Jam	1	2	2	2	Moderate	10
Earthquake	2	3	2	1	Moderate	11

### 3.2. Critical Facilities

Critical facilities are defined as any facility that is critical for emergency response or that requires special emergency response in the event of hazardous incidents as identified by the Town of West Monroe. The tables below denote the number and locations of critical facilities within the Town.

Table 2: Critical Infrastructure in the Town of West Monroe			
Facility Name	Address (Street, Town/Town/Hamlet)	Parcel Located in Floodplain	Structure Located in Floodplain
Transportation Network			
Evacuation Routes	-	-	-
Bridges	-	-	-
Public Utilities			
Big Bay Sewage Pump Station (in construction)	off of Camic Rd	100YR, 500YR	500YR
National Grid Substation	off of Depot Rd	100YR	100YR
Television Tower/Cell Repeater	off of Grannis Rd	100YR	No
Toad Harbor Pump Station	off of Shaw Rd	100YR, 500YR	500YR
Water Pump Station	off of NY-49	No	No
Mirabito Gas Station & Storage Facility	2926 NY-49, Central Square, NY 13036	No	No
Municipal Services			
Town Highway Garage	46 County Rt 11, West Monroe, NY 13167	100YR, 500YR	500YR
Town Hall	46 County Rt 11, West Monroe, NY 13167	100YR, 500YR	No
Emergency and Medical Services			
West Monroe Volunteer Fire Dept.	54 County Rt 11, West Monroe, NY 13167	No	No
Community Services			
U.S. Post Office	2301 NY-49, West Monroe, NY 13167	No	No

## 4.0 Priority Hazard Events

The following sections detail the priority hazard events identified by the jurisdiction. Additional information about County-selected hazards including frequency, history, and severity is included within Section 5.0 of the main body of the Plan.

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

Past occurrences of hazard events are indicated in their respective profiles below. Some hazards may not have locally available documentation of past occurrence, but were included in this annex for future mitigation planning consideration.

### 4.1 Natural Hazards

Natural hazards selected to be profiled for the Town of West Monroe are described in detail below.

#### 4.1.1 Ice Storm

For a description of this hazard, please see Section 5.1.3 of the main body of the Plan.

##### Hazard Vulnerability

Historically, ice storms have occurred about once every seven (7) years in Oswego County. These storms typically affect most or all of the County. The entire Town of West Monroe is highly vulnerable to damages from an ice storm event due to this hazard's large extent and high damage potential.

##### Historical Hazard Occurrences and Damage Estimates

The Town of West Monroe was affected by the three (3) county-wide ice storm events recorded by the NCDC, which are described in Section 5.1.3 of the main body of the Plan. No damage estimates or records related to ice storms are reported specifically for the Town of West Monroe.

##### Future Potential Impacts

The Town of West Monroe will continue to experience ice storm events in the future, as will the rest of Oswego County. The Town Highway Dept. completes tree maintenance within Town road right of ways to minimize potential damages to overhead utility lines, which is

common during ice storms. Private utility right of ways are generally maintained by the individual utility companies.

#### 4.1.2 Flood

For a description of this hazard, please see Section 5.1.2 of the main body of the Plan.

##### Hazard Vulnerability

The Town of West Monroe drains to Oneida Lake. FEMA's Flood Insurance Mapping Program designates areas that are at risk for flooding. Low flood risk are areas unlikely to flood, moderate risk are areas within the 500-year floodplain (0.2% likely to flood in any given year), and high risk are areas that frequently flood, up to the 100-year flood risk zone (1% likely to flood in any given year). Table 3 summarizes the amount of land within the Town of West Monroe that is located within 100-year and 500-year floodplains and low-risk flood areas.

Table 3: Summary of Areas in Floodplains (Source: FEMA DFIRM 2011)			
Town of West Monroe Total Area	Percent of Total Area		
	100-Year Floodplain	500-Year Floodplain	Area of Minimal Flood Hazard
21,623 acres	28.94%	0.40%	70.76%

Table 4 below summarizes the value of properties in the Town of West Monroe that are located within the 100-year floodplain and is categorized by land use type. This table was derived from FEMA floodplain mapping and parcel data from the Oswego County Real Property Tax Office.

Table 4: Parcels within to 100-year Flood Events and Their Estimated Structure Values				
Type of Structure	# Parcels in 100-Year Floodplain	Approx. Structure Value* in 100-Year Floodplain	# Parcels in 500-Year Floodplain	Approx. Structure Value* in 500-Year Floodplain
Agricultural	3	\$0	0	-
Commercial	11	\$6,154,276	0	-
Community Services	4	\$541,880	6	\$945,800
Industrial	1	\$75,000	4	\$541,880
Residential	498	\$49,658,231	218	\$22,054,411
Utility	3	\$1,264,014	2	\$198,934
Other**	184	\$3,083,600	61	\$2,135,500
Total	704	\$60,777,001	291	\$25,876,525
*Structure Value estimated by subtracting parcel's Land Assessed Value from Total Assessed Value (Oswego County Real Property Tax Office, 2018)				
**Includes parcels classified as vacant; recreational; and wild forest/conservation land/parks.				

### Historical Hazard Occurrences and Damage Estimates

According to NOAA's Storm Events Database, no flood records were noted to specifically impact the Town of West Monroe. The most vulnerable areas of the Town are properties near the shore of Oneida Lake (generally referred to as Big Bay and Toad Harbor). The Town has also been impacted by numerous county-wide events described in Section 5.1.2 of the main body of the Plan.

As described in Section 6.0 of this annex, fifteen (15) NFIP loss claims have been paid as of November 2017 in the Town of West Monroe totaling \$106,180.25. There are five (5) repetitive loss properties in the Town of West Monroe, all single family residences. Together, the five (5) properties have incurred a total of eleven (11) losses, with \$81,268.24 in payments. Of this total, \$77,807.53 was paid for building damages and \$3,460.71 was paid for content damages.

### Future Potential Impacts

Properties along the shore of Oneida Lake, which borders the Town to the south, and its tributaries are vulnerable to flooding. Nearly 30% of the Town of West Monroe is within a mapped 100-year floodplain. In addition, multiple critical facilities are located on parcels that intersect the 100-year and/or 500-year floodplain. For most of these facilities, the structures themselves are outside of a mapped floodplain (Table 2). Four (4) of the Town's critical facilities are located within a mapped 100-year and 500-year floodplain:

- Town Highway Garage - 46 County Rt 11, West Monroe, NY 13167
- National Grid substation - off of Depot Road
- Big Bay Wastewater Treatment Plant (in process of being converted to pump station) – off of Camic Road
- Toad Harbor Pump Station – off of Shaw Road

The four (4) facilities total approximately \$719,934 in value. The Toad Harbor Pump Station has submersible pumps, the only above-ground structure is the electrical backboard which is elevated above the flood elevation. The Big Bay Wastewater Treatment Plant was built above the 100-year flood elevation. The WWTP is in the process of being converted to a pump station which has above-ground pumps and blowers on concrete stands within the existing WWTP building, and a new equalization tank that is also located above the 100-year flood elevation. The Town will continue to enforce local floodplain regulations in order to protect properties from damages as much as possible.

### 4.1.3 Severe Thunderstorm, Wind, Tornado and Coastal Storm

For a description of severe thunderstorm, wind, or tornado events, please see Section 5.1.1 of the main body of the Plan. Coastal storms can cause increases in tidal elevations (called storm surge), wind speed, and erosion, caused by both extratropical events and tropical cyclones. Extratropical events including Nor'easters and severe winter low-pressure systems are more applicable to Oswego County. These non-tropical storms produce strong winds and heavy rain or snow, and can last for several days and affect a very large area.

#### Hazard Vulnerability

The entire Town is highly vulnerable to damages from a severe thunderstorm, wind, or tornado or coastal storm event. Fallen trees from severe winds can damage overhead utility lines, resulting in power outages. In addition, these events are likely to result in damages to private and public infrastructure and property.

#### Historical Hazard Occurrences and Damage Estimates

In addition to the 101 severe storm events reported within Oswego County, the NCDC reports thirteen (13) specific severe storm events that occurred in the Town of West Monroe between 1998 and 2017 (frequency of about once a year to once every 2 years). Two (2) of these records were hail events and eleven (11) were thunderstorm winds. Estimated damages for the Town of West Monroe ranged from \$5,000 to \$25,000 (Table 5). Actual damages were likely greater than those estimated by the NCDC.

Table 5: Severe Storm Event Records for the Town of West Monroe				
Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Thunderstorm Wind	5/29/1998	59 kts	\$10,000	-
Thunderstorm Wind	9/12/2000	-	\$10,000	-
Thunderstorm Wind	5/27/2001	58 kts	\$35,000	-
Thunderstorm Wind	5/24/2004	50 kts	\$15,000	-
Thunderstorm Wind	7/26/2005	50 kts	\$15,000	-
Thunderstorm Wind	6/19/2006	50 kts	\$15,000	-
Thunderstorm Wind	4/26/2011	51 kts	\$20,000	-
Thunderstorm Wind	7/26/2011	52 kts	\$10,000	-
Hail	5/22/2013	1.5 inches	\$5,000	-
Thunderstorm Wind	9/2/2013	50 kts	\$15,000	-
Hail	9/11/2013	0.88 inches	-	-
Thunderstorm Wind	6/20/2016	50 kts	\$25,000	-
Thunderstorm Wind	5/18/2017	52 kts	\$10,000	-
Total			\$185,000	-



### Future Potential Impacts

Severe storms are a common event in the Town of West Monroe and will continue to occur in the future. The frequency and magnitude of severe storm events may increase due to climate change.

#### 4.1.4 Severe Winter Storm

For a description of this hazard, please see Section 5.1.4 of the main body of the Plan.

### Hazard Vulnerability

Severe winter storms typically occur about eleven (11) times annually in Oswego County. These storms typically affect most or all of the County. The entire Town of West Monroe is susceptible to damages from a severe winter storm event. The Town Highway Dept. clears Town streets during heavy snow events, and the Town works with the Oswego County Highway Dept. and NYS Dept. of Transportation for clearing of other roadways. Roadway safety is a major concern during severe winter storm events.

### Historical Hazard Occurrences and Damage Estimates

The Town of West Monroe has been affected by a number of county-wide severe winter storm events, described in Section 5.1.4 of the main body of the Plan. Severe winter storms typically occur several times annually in Oswego County. These storms typically affect most or all of the County. The NCDC does not report any winter storm records or damage estimates specific to the Town of West Monroe.

### Future Potential Impacts

The Town of West Monroe will continue to experience severe winter storm events in the future. Severe winter storms are common throughout Oswego County and occur about eleven (11) times annually.

#### 4.1.5 Infestation

An infestation is defined as an excessive population of insects, rodents, or other animals requiring control measures due to their potential to carry diseases, destroy crops, or harm the environment.

### Hazard Vulnerability

The Town of West Monroe is moderately vulnerable to an infestation due to this hazard's moderate extent and moderate impact potential. Emerald ash borer is a primary concern. About 50% of the Town of West Monroe consists of forested land. Ash trees comprise approximately 16-30% per total basal area of forests in the area according to the NYSDEC (Figure 5.8, Appendix A of the main body of the plan), which are susceptible to emerald ash borer infestation. Mosquitoes and ticks are also a concern for the Town due to their potential to spread illnesses.

### Historical Hazard Occurrences and Damage Estimates

The Town of West Monroe, along with other jurisdictions in the southern portion of Oswego County, is within the emerald ash borer restricted zone defined by the NYSDEC (Figure 5.7, Appendix A of the main body of the plan). The restricted zone in NYS generally encompasses the currently infested area (as of May 2017). The transport of ash tree materials (wood, logs, untreated firewood, nursery stock, and wood chips) outside of the restricted zone is prohibited to prevent the spread of emerald ash borer. In addition, the NYSDEC prohibits the import of firewood into NY State unless it has been heat-treated to kill emerald ash borer and other pests. In addition, untreated firewood originating anywhere in NY State cannot be transported more than fifty (50) miles from its origin.

The Town of West Monroe is adjacent to Oneida Lake and contains large forested wetlands. Mosquitoes are monitored in the Town and have tested positive for West Nile Virus and Eastern Equine Encephalitis, both of which can be fatal diseases in humans. The Oswego County Health Dept. conducts aerial insecticide spraying along the north shore of Oneida Lake. In addition, tick populations are rising in central New York, and can carry a number of illnesses such as Lyme disease.

### Future Potential Impacts

Emerald ash borer is likely to continue to spread throughout Oswego County. The Town of West Monroe has a large amount of forested land, and is likely to be susceptible to increased tree damage from the emerald ash borer, as well as a rise in tick populations.

#### 4.1.6 Extreme Temperatures

For a description of this hazard, please see Section 5.1.5 of the main body of the Plan.

##### Hazard Vulnerability

Historically, extreme cold events have occurred about every other year in Oswego County. These events typically affect most or all of the County. The entire Town of West Monroe is susceptible to an extreme temperature event. Vulnerable populations, including people under the age of five (5) or over the age of sixty-five (65), along with low income populations and people with health problems are most vulnerable. The Town was determined to have a moderate vulnerability to extreme temperature events due to their widespread nature, and relatively common occurrence.

##### Historical Hazard Occurrences and Damage Estimates

The Town of West Monroe was affected by the county-wide extreme cold events recorded by the NCDC, which are described in Section 5.1.5 of the main body of the Plan. No damage estimates or records related to extreme temperature events are reported specifically for the Town of West Monroe. Extreme temperature events are unlikely to cause significant property damage, though crop damages are possible depending on the time of year. Significant injuries or loss of life due to extreme temperature events are possible, but in small numbers.

##### Future Potential Impacts

The Town of West Monroe will continue to experience extreme temperature events in the future, as will the rest of Oswego County. Extreme temperature events are likely to increase in frequency due to climate change. Rural communities such as the Town of West Monroe are generally used to extreme temperature events. The Town has emergency shelters established, which could be used as warming stations for residents during extreme cold events.

#### 4.1.7 Drought

Droughts are extended periods of time with unusually low precipitation, which lead to a limited water supply and crop losses. Drought periods progress through stages and drought intensity may vary considerably during the drought period. The time of occurrence and duration can cause significant variations in drought impacts. Droughts are categorized by the U.S. Drought Monitor in five (5) levels based on severity:

- Category D0: Abnormally dry conditions; may lead to a drought.
- Category D1: Moderate drought; some damages to crops and pasture may occur, water levels are low.

- Category D2: Severe drought; crop losses and water shortages are likely to occur.
- Category D3: Extreme drought; major crop losses and widespread water shortages.
- Category D4: Exceptional drought; extreme crop losses and water emergencies result.

### Hazard Vulnerability

The entire Town of West Monroe is moderately susceptible to a drought due to the widespread extent and potential to cause moderate damages. Agricultural areas and private wells would experience the most significant impacts. The Town currently has a public water system for portions of the Town. The southeastern portion of the Town of West Monroe is served by a municipal water system (Toad Harbor Water District), which connects to the Town of Constantia's water system. The Town's water system receives water from the Onondaga County Water Authority (OCWA). Water is supplied by the Metropolitan Water Board's (MWB) Lake Ontario water treatment facility near the City of Oswego. Many residents in the Town of West Monroe still rely on private groundwater wells for potable water.

### Historical Hazard Occurrences and Damage Estimates

There are no drought records specifically reported for the Town of West Monroe. The Town was impacted by a drought in the late summer and fall of 2016, which affected the entire County. During the 2016 drought, dry hydrants and shallow wells were adversely affected in the Town of West Monroe. The Town is partially served by a municipal water system, but many residents rely on private wells for potable water.

### Future Potential Impacts

The entire Town of West Monroe remains susceptible to a drought event. While drought events only occur occasionally, they are likely to increase in frequency and magnitude in the future due to climate change.

#### 4.1.8 Wildfire

A wildfire is an uncontrollable combustion of trees, brush, or grass involving a substantial land area which may have the potential for threatening human life and property. Wildfires often begin unnoticed and spread quickly and are usually signaled by dense smoke that fills the area for miles around. In Oswego County, past occurrences of wildfires were caused by open burning.

### Hazard Vulnerability

The Town of West Monroe is moderately susceptible to a wildfire. The Town primarily consists of forested cover and also has a large number of agricultural properties. A wildfire event could impact a moderate amount of the Town and would come with little to no warning. The Town of West Monroe experienced 1.4 to 3.4 wildfires per square mile between 2003 and 2017 (see Figure 5.9, Appendix A of the main body of the plan).

### Historical Hazard Occurrences and Damage Estimates

There are no historical damage estimates of wildfires within the Town of West Monroe. Previous wildfire events within Oswego County were generally caused by open burning during dry weather. The NYSDEC implemented a statewide open burn ban in 2010, which has helped reduce the number of wildfires throughout the state. Wildfires generally do not cause significant property damages as they tend to occur in undeveloped portions of the County. Crop damage is more likely to occur. However, the jurisdiction or County would likely incur significant costs associated with firefighting and other emergency response needs.

### Future Potential Impacts

The Town of West Monroe is largely undeveloped and remains susceptible to wildfires, though the risk is relatively low. The statewide open burn ban is expected to remain in effect, which lessens the risk of wildfires.

#### 4.1.9 Ice Jam

An ice jam is described as a large accumulation of ice in rivers or streams that interrupts the normal flow of water and often leads to flooding conditions and/or damage to nearby structures. Ice jam events typically occur from the early winter to late spring months and are often short-lived and often affect only a localized reach or area of a body of water. Freeze-up jams occur when waterbodies are beginning to freeze over during the early winter and do not typically result in significant floods. Break-up jams typically occur later in the spring when built up ice breaks or moves as it begins to melt or when water levels rise due to precipitation or snowmelt. Break-up jams often result in flooding and property damages.

### Hazard Vulnerability

In the Town of West Monroe, an ice jam could occur along Scriba Creek, Frederick Creek, and other major tributaries to Oneida Lake (Figure 1). Areas that may incur damages due to an ice jam generally include properties within a 100-year or 500-year floodplain, as shown in Table 4 in Section 4.1.3. In the Town of West Monroe, these areas primarily consist of residential properties and vacant land.

### Historical Hazard Occurrences and Damage Estimates

The Town does not have any documented past occurrences of ice jams. However, the Town elected to include this hazard for future planning considerations. An ice jam has the potential to occur on Slocum Creek at County Route 11 or Big Bay Creek at State Route 49. There is a wooden bridge over Big Bay Creek on State Route 49 that could potentially be destroyed by an ice jam.

### Future Potential Impacts

Tributaries to Oneida Lake that are present in the Town pose risks of ice jams in the Town of West Monroe. In the future, ice jams may occur more frequently due to climate change.

#### 4.1.10 Earthquake

An earthquake is a sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of Earth's tectonic plates. They usually occur without warning and after just a few seconds can cause massive damage and extensive casualties. The most seismically active regions in New York State are in the Adirondacks and near the Canadian border along the St. Lawrence River followed by the New York City and the Buffalo, Niagara, and Attica regions.

### Hazard Vulnerability

Earthquakes are a rare occurrence, and there are no records of earthquakes originating in Oswego County. An inactive fault line runs underneath the county. Earthquakes originating in other portions of the state have been felt in Oswego County. The Town of West Monroe is moderately susceptible to a potential earthquake event, due to the lack of warning and moderate extent and damages associated with this hazard.

### Historical Hazard Occurrences and Damage Estimates

There are no historical records of earthquakes occurring in the Town of West Monroe. The Town of Amboy, which is northeast of West Monroe, experienced damages to their fire station due to an earthquake originating in Au Sable Forks, NY on April 20, 2002. An earthquake has the potential to cause hundreds of thousands of dollars in damages.

### Future Potential Impacts

The Town of West Monroe is susceptible to future earthquake events affecting Oswego County. However, earthquakes are expected to remain a rare event in Oswego County and pose a very low risk to the County and its jurisdictions.

## 5.0 Capability Assessment

### 5.1 Planning and Regulatory Capability

The Town's HMP update will be incorporated into and referenced by future updates of the plans, policies, ordinances, programs, studies, and reports listed in Table 6, below.

Table 6. Planning Mechanisms and Capabilities		
Planning Mechanism	Town of West Monroe	Notes
Plans		
Comprehensive/Land Use Plan	X	Adopted. 2018 update in progress
Post Disaster Recovery Plan	X	In place.
Comprehensive Emergency Management Plan	X	Updated in July 2018 with assistance from Oswego County Emergency Management
Policies/Ordinances		
Building Codes	<ul style="list-style-type: none"> <li>• 2010 Residential Code of NYS</li> <li>• 2010 Fire Code of NYS</li> <li>• 2010 Building Code of NYS</li> <li>• 2010 Existing Building Code of NYS</li> <li>• 2010 Energy Conservation Construction Code of NYS</li> <li>• 2010 Plumbing Code of NYS</li> <li>• 2010 Mechanical Code of NYS</li> <li>• 2010 Fuel Gas Code of NYS</li> </ul>	Town Code Enforcement Officer
Zoning Codes	X	Zoning Code- Local Law No. 1 of 2017
Subdivision Regulations	X	Adopted.
Property Set-back Ordinance	X	In zoning.
Flood Regulations	X	Local Law #1 of 2009
Stormwater Ordinance	X	Adopted.
Site Plan Review Requirements	X	In place. Town Planning Board responsible
Real Estate Disclosure Requirement	X	In place.
Programs		
NFIP Participant	X	Current participant.
Public Education/Awareness Program	X	Fire Dept. responsible
Stream Maintenance Program	X	Highway Dept. responsible
Storm Drainage Maintenance Program	X	Highway Dept. responsible
Mutual Aid Agreements	X	Agreements with neighboring jurisdictions and Oswego County.
Studies/Reports		
Hazard Analysis/Risk Assessment	X	2012 Oswego County Hazard Mitigation Plan
Floodplain Maps and/or Studies	X	2011 FEMA Digital Flood Insurance Rate Maps

Table 6. Planning Mechanisms and Capabilities		
Planning Mechanism	Town of West Monroe	Notes
Staff/Development		
Building Code Official	X	Code Enforcement Officer
Local Floodplain Administrator	X	Code Enforcement Officer
Public Information Official	X	Town Supervisor

## 5.2 Emergency Communications, Routes, and Shelters

The Town of West Monroe, along with Oswego County, utilize the HyperReach emergency communications system. Major transportation routes within the Town include State Route 49. The Town of West Monroe has one (1) established emergency shelter:

- West Monroe Volunteer Fire Dept.- 54 CR 11, West Monroe, NY 13167

The Volunteer Fire Department is ADA compliant. The Town does not currently have any emergency pet sheltering accommodations.

## 5.3 Temporary and Permanent Housing Locations

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

- **Potential Temporary Housing Locations**
  - Glennwood Country Club – Toad Harbor Rd
- **Potential Permanent Housing Locations**
  - Park land off of Depot Rd (owned by NYS)

## 6.0 National Flood Insurance Program

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



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

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

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

The Town of West Monroe currently participates in the NFIP. As of November 2017, the Town had fifty (50) flood insurance policies in-force with a total of \$8,617,700 in coverage. In addition, twenty (20) NFIP claims have been filed to date, five (5) of which were closed without payment. The remaining fifteen (15) claims were closed with \$106,180.25 in payments. There are five (5) repetitive loss properties in the Town of West Monroe (all single family residences). As of October 2017, these properties incurred a total of eleven (11) losses with \$81,268.24 in payments. Of this total, \$77,807.53 was paid for building damages and \$3,460.71 was paid for content damages.

The Town's Code Enforcement Officer serves as the Local Floodplain Administrator, and flood maps are available for viewing and copying at the Town Hall (46 County Route 11, West Monroe, NY 13167). The Town has been maintaining NFIP participation by performing the duties and actions that were listed in the local laws adopted by the Town Board (Local Law #1 of 2009). The Town will continue to comply with the NFIP by enforcing floodplain management requirements and regulating new development in Special Flood Hazard Areas, in addition to other required duties. The Town included a new mitigation action in this plan update to buy out the five (5) repetitive loss properties located in the Town in order to reduce future flood damages.

## 7.0 Mitigation Strategy and Prioritization

### 7.1 Past, Completed, and Ongoing Initiatives

The Town has completed several mitigation projects since the publication of the previous Oswego County HMP. The Town proposed four (4) mitigation actions in the 2012 Oswego County HMP. The details and status of previous actions are summarized below in Table 7. None of the 2012 mitigation actions proposed for the Town of West Monroe were re-included for the 2018 update.

Table 7. 2012 Hazard Mitigation Actions Town of West Monroe				
Proposed Mitigation Action	Hazard(s) Mitigated	Goals and Objectives Met	Implementing Agency	Status
Examine and implement ways to reduce flooding issues on north shore of Oneida Lake	Flood	4-d	NYSOEM, FEMA, West Monroe Municipal Board, Canal Corp., North Shore Council of Governments.	In progress. The Town is currently in Year 2 of their 4-Year Plan to add more stormwater outfalls in the most densely populated areas of the north shore area. This work is being funded under the Town budget.
Complete flooding/ drainage analysis to reduce flood impacts to properties along north shore of Oneida Lake	Severe storm, flood, winter storm	4-d	West Monroe municipal board, planning board	Ongoing. The Town Engineer completes an annual review to update the town-wide analysis to identify problem areas. This is funded under the Town budget.
Review emergency evacuation signage within I-81 corridor communities – establish such signage if needed	Severe storm, ice storm, earthquake, tornado, flood, wildfire, winter storm, coastal storm, landslide, terrorism, hazmat (transit)	5-c, 5-e	County EMO, West Monroe municipal boards and Highway/DPW, NYSDOT	Complete- NYSDOT is making improvements along I-81 – implementing closure barriers, signage, etc.
Install programmable emergency message sign and backup generator at Town of West Monroe Town Hall	All hazards	5-d	Town of West Monroe Town Board and planning board	In progress. Town plans to discuss purchase of a variable message sign for the Town Hall during Town Board meetings in 2018. Will be funded by the Town budget.

## 7.2 Proposed Mitigation Actions

The Town proposed five (5) new mitigation actions to be included in the HMP update. These actions are described in Table 8, below and on worksheets included in Attachment A.

Table 8. 2018 Proposed Mitigation Actions Town of West Monroe									
Action ID	Mitigation Action	Hazard(s) Mitigated	Implementing Agencies (Lead* & Support)	Planning Mechanism	Timeframe	New or Existing Development	Estimated Cost	Funding Source(s)	Priority
West Monroe 1	Install generator at Town Hall/Highway Garage Complex	All	Town Highway Dept.*	Comprehensive Emergency Management Plan	1-2 years	Existing	\$40,000	FEMA- PDM; USDA-RD Community Facilities Grant	1 (High)
West Monroe 2	Relocate the Town Highway Garage	Flood, Severe Winter Storm	Town Supervisor*	Comprehensive Emergency Management Plan	5 years	Existing	\$500,000	FEMA- PDM; USDA-RD Community Facilities Grant	2 (High)
West Monroe 3	Develop and distribute property resilience brochure to all Town residents	Severe Thunderstorm/ Wind/Tornado, Flooding, Severe Winter Storm, Ice Storm	Town Supervisor*	Comprehensive Emergency Management Plan	5 years	Existing	\$500-2,000	Town budget	3 (Medium)
West Monroe 4	Purchase and install an electronic sign for the Town Hall	All	Town Supervisor*	Comprehensive Emergency Management Plan	1 year	Existing	\$25,000	FEMA- PDM; Town budget	4 (Medium)
West Monroe 5	Buy out properties with repetitive National Flood Insurance Program loss claims	Flood	Town Supervisor*	Comprehensive Emergency Management Plan	10 years	Existing	\$925,000	FEMA- PDM	5 (Medium)
Potential Funding Sources FEMA PDM: <a href="https://www.fema.gov/pre-disaster-mitigation-grant-program">https://www.fema.gov/pre-disaster-mitigation-grant-program</a> USDA-RD Community Facilities Grant: <a href="https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program">https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program</a>									

### 7.3 Cost-Benefit Analysis

Each of the Town's proposed mitigation actions were evaluated and prioritized using the STAPLEE cost-benefit analysis. The Town's STAPLEE worksheet is provided in Attachment B. The STAPLEE analysis includes the following lenses of evaluation: social, technological, administrative, political, legal, economic, and environmental.

## 8.0 Works Cited

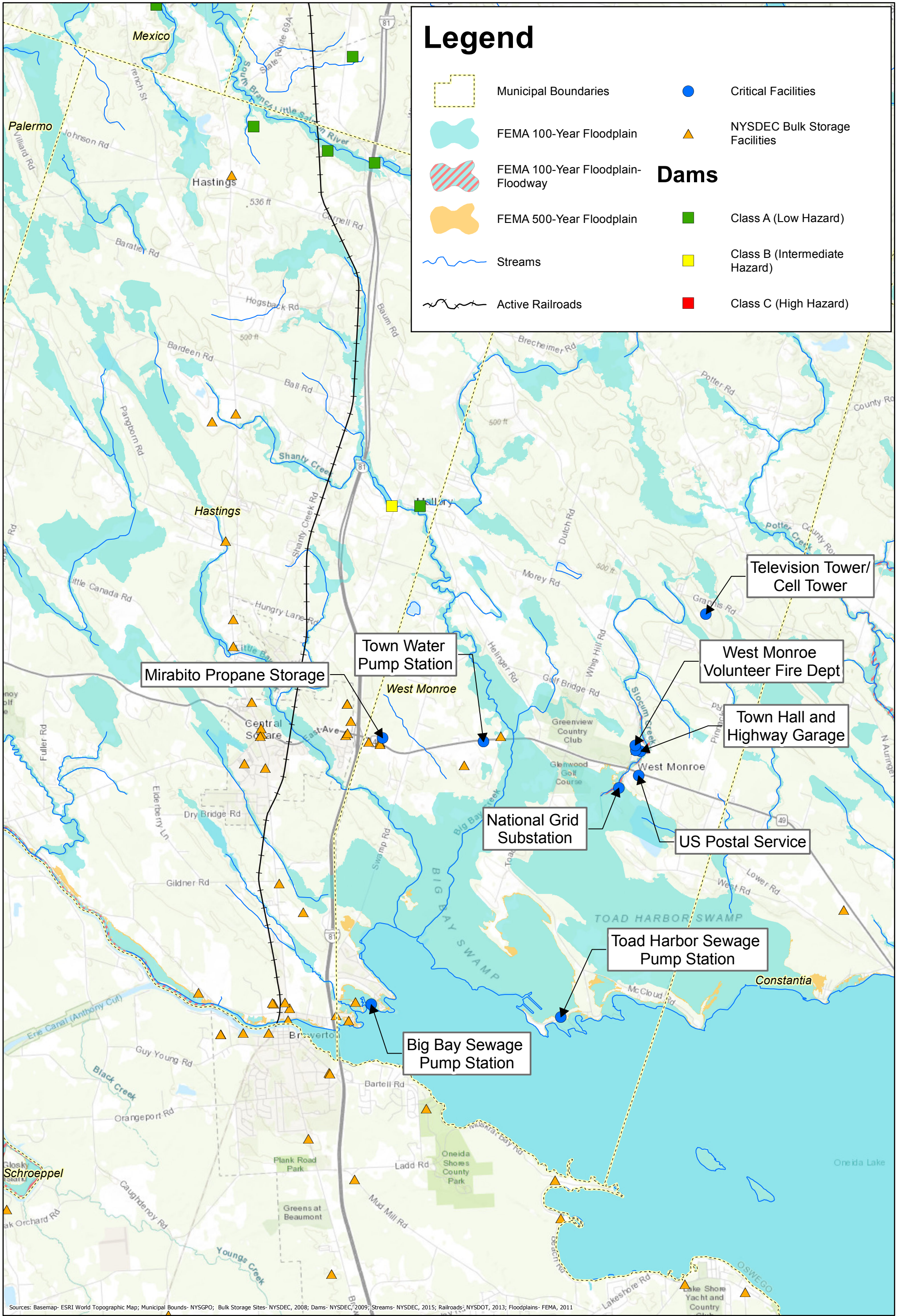
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**Figure 1**

**Hazard Area Extent and Location Map –  
Town of West Monroe**





Sources: Basemap- ESRI World Topographic Map; Municipal Bounds- NYSGPO; Bulk Storage Sites- NYSDEC, 2008; Dams- NYSDEC, 2009; Streams- NYSDEC, 2015; Railroads- NYSDOT, 2013; Floodplains- FEMA, 2011



# **Attachment A**

## **Mitigation Action Worksheets – Town of West Monroe**

## Oswego County Multi-Jurisdictional Hazard Mitigation Plan

<b>Name of Jurisdiction:</b>	Town of West Monroe
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Mitigation Action Worksheet	
<b>Project Name:</b>	Install generator at Town Hall/Highway Garage Complex
<b>Project Number:</b>	West Monroe 1
Risk/Vulnerability	
<b>Hazard of Concern:</b>	All
<b>Description of the Problem:</b>	The Town Hall is an emergency operations center and command post for emergency responders. During emergencies with prolonged power outages the Town Hall would not be able to meet the needs of emergency responders.
Action of Project Intended for Implementation	
<b>Description of the Solution:</b>	Install generator at Town Hall to maintain continuity of critical operations during power outages.

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

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

<b>Level of Protection:</b>	#1 (High)	<b>Estimated Benefits (losses avoided):</b>	Guaranteed backup power for Town Hall and Highway Garage during hazard events with prolonged power outages. This will allow Town to maintain critical operations during these events.
<b>Useful Life:</b>	Long-term- 15-20 years		
<b>Estimated Cost:</b>	\$40,000		

Plan for Implementation			
<b>Prioritization:</b>	#1 (High)	<b>Desired Timeframe for Implementation:</b>	1-2 years
<b>Estimated Time Required for Project Implementation:</b>	6 months	<b>Potential Funding Sources:</b>	FEMA- PDM; USDA-RD- Community Facilities Grant
<b>Responsible Organization:</b>	Town Highway Dept.	<b>Local Planning Mechanisms to be used in Implementation, if any:</b>	Comprehensive Emergency Management Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
<b>Alternatives:</b>	No Action	\$0	EOC still at risk of power outage during hazard events
	Co-locate the Town Emergency Operations Center with the Fire Dept. (fire dept. already has a generator)	\$0	The Fire Dept. is already a designated shelter for residents- would not be practical to have shelter in same building as EOC
	Install generator at Town Hall/Highway Garage complex	\$40,000	Guaranteed backup power for EOC- maintain continuity of emergency operations

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



## Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of West Monroe
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Mitigation Action Worksheet	
<b>Project Name:</b>	Relocate the Town Highway Garage
<b>Project Number:</b>	West Monroe 2
Risk/Vulnerability	
<b>Hazard of Concern:</b>	Flood, Severe Winter Storm
<b>Description of the Problem:</b>	Currently, the Town's highway garage is located in the 100-year and 500-year floodplain of Slocum Creek. This puts the Town at risk of losing access to or continuity of operations at the highway garage during a major flood event. In addition, the salt storage at the current highway department location can contribute to salt runoff to Slocum Creek.
Action of Project Intended for Implementation	
<b>Description of the Solution:</b>	Relocate the Town Highway garage to an existing Town property on County Rt 26 that is not within a floodplain. This will also allow the Town Highway Department to respond more quickly for snow plowing in the northern part of the Town, which tends to receive heavier snowfall.

Is this project related to a Critical Facility?    Yes ☒ No ☐

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

<b>Level of Protection:</b>	High	<b>Estimated Benefits (losses avoided):</b>	The highway garage would no longer be at risk of flooding. Continuity of operations would be maintained during flood events. Prevent salt runoff to Slocum Creek.
<b>Useful Life:</b>	Long-term		
<b>Estimated Cost:</b>	\$500,000		

Plan for Implementation			
<b>Prioritization:</b>	High	<b>Desired Timeframe for Implementation:</b>	5 years
<b>Estimated Time Required for Project Implementation:</b>	1 year	<b>Potential Funding Sources:</b>	FEMA- PDM; USDA-RD-Community Facilities Grant
<b>Responsible Organization:</b>	Town Supervisor	<b>Local Planning Mechanisms to be used in Implementation, if any:</b>	Comprehensive Emergency Management Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
<b>Alternatives:</b>	No Action	\$0	No change in public awareness regarding property resilience.
	Reconstruct highway garage on same site at higher elevation	\$300,000	May prevent flood damages but would have to mitigate impacts to the floodplain. Damage or lack of access could still occur during severe flooding events.
	Relocate highway garage to new location outside of floodplain	\$500,000	Most comprehensive approach. Omits flood concerns for highway garage.

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

## Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of West Monroe
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Mitigation Action Worksheet	
<b>Project Name:</b>	Develop and distribute property resilience brochure to all Town residents
<b>Project Number:</b>	West Monroe 3
Risk/Vulnerability	
<b>Hazard of Concern:</b>	Severe Thunderstorm/Wind/Tornado, Flooding, Severe Winter Storm, Ice Storm
<b>Description of the Problem:</b>	Many residents throughout Oswego County, including the Town of West Monroe, may lack knowledge regarding how to make their properties more resilient to flooding and storm events. Storm damages could be minimized or avoided if residents had access to practical methods for hardening their properties.
Action of Project Intended for Implementation	
<b>Description of the Solution:</b>	Modify County-wide property resiliency brochure to include additional information regarding Town codes, contact information, and other Town-specific information. Distribute the brochure to each Town resident, either by mailing or making the document available on the Town website and at the Town Hall.

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

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

<b>Level of Protection:</b>	Low	<b>Estimated Benefits (losses avoided):</b>	Town residents would be better informed about ways to protect their properties during flooding and storm events, which would help to lessen property damages in the future.
<b>Useful Life:</b>	Long-term		
<b>Estimated Cost:</b>	\$500-2,000		

Plan for Implementation			
<b>Prioritization:</b>	Medium	<b>Desired Timeframe for Implementation:</b>	5 years
<b>Estimated Time Required for Project Implementation:</b>	3 months	<b>Potential Funding Sources:</b>	Town budget
<b>Responsible Organization:</b>	Town Supervisor	<b>Local Planning Mechanisms to be used in Implementation, if any:</b>	Comprehensive Emergency Management Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
<b>Alternatives:</b>	No Action	\$0	No change in public awareness regarding property resilience.
	Distribute property resiliency brochure developed by Oswego County	\$500-2,000	Partial solution. The property resiliency techniques likely would be the same as those identified for the County, but this option lacks Town-specific information.
	Distribute Oswego County property resiliency brochure modified with Town-specific information	\$500-2,000	Most comprehensive approach, gives Town residents more complete information regarding Town-specific codes and contacts.

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

## Oswego County Multi-Jurisdictional Hazard Mitigation Plan

<b>Name of Jurisdiction:</b>	Town of West Monroe
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Mitigation Action Worksheet	
<b>Project Name:</b>	Purchase and install an electronic sign for the Town Hall
<b>Project Number:</b>	West Monroe 4
Risk/Vulnerability	
<b>Hazard of Concern:</b>	All
<b>Description of the Problem:</b>	Town residents currently receive emergency information in multiple ways (TV, internet, radio, phones, etc.) that may fail during power outage.
Action of Project Intended for Implementation	
<b>Description of the Solution:</b>	Purchase and install an electronic messaging sign for the Town Hall to provide emergency information for all residents on emergency assistance, road closures, and hazard conditions throughout Town.

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

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

<b>Level of Protection:</b>	Medium	<b>Estimated Benefits (losses avoided):</b>	Sign would help direct residents on where to get help and hazardous areas to avoid. The sign would be operational in all conditions if the Town Hall obtains a backup power source.
<b>Useful Life:</b>	Long-term (20 years)		
<b>Estimated Cost:</b>	\$25,000		

Plan for Implementation			
<b>Prioritization:</b>	#4 (Medium)	<b>Desired Timeframe for Implementation:</b>	1 year
<b>Estimated Time Required for Project Implementation:</b>	6 months	<b>Potential Funding Sources:</b>	FEMA- PDM; Town budget
<b>Responsible Organization:</b>	Town Supervisor	<b>Local Planning Mechanisms to be used in Implementation, if any:</b>	Comprehensive Emergency Management Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
<b>Alternatives:</b>	No Action	\$0	Information limitations continue to pose a risk.
	Update the existing mechanical placard board	\$0	Cumbersome to update, low visibility
	Install electronic messaging sign	\$25,000	Better visibility and easier to update with new information

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

## Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of West Monroe
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Mitigation Action Worksheet	
<b>Project Name:</b>	Buy out properties with repetitive National Flood Insurance Program loss claims
<b>Project Number:</b>	West Monroe 5
Risk/Vulnerability	
<b>Hazard of Concern:</b>	Flood
<b>Description of the Problem:</b>	The Town of West Monroe has five repetitive loss properties that have incurred multiple property losses under the National Flood Insurance Program. A total of \$81,268.24 in payments have been made to these properties, which have collectively incurred 11 flood insurance claims.
Action of Project Intended for Implementation	
<b>Description of the Solution:</b>	Buy out repetitive loss properties and demolish structures. Convert properties to wild conservation/park land and prevent future development in these locations.

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

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

<b>Level of Protection:</b>	High	<b>Estimated Benefits (losses avoided):</b>	Reduce flood-related damages to private properties.
<b>Useful Life:</b>	Long-term		
<b>Estimated Cost:</b>	\$925,000 (based on average lakefront property value of \$185,000)		

Plan for Implementation			
<b>Prioritization:</b>	Low (#5)	<b>Desired Timeframe for Implementation:</b>	10 years
<b>Estimated Time Required for Project Implementation:</b>	5 year	<b>Potential Funding Sources:</b>	FEMA- PDM
<b>Responsible Organization:</b>	Town Supervisor	<b>Local Planning Mechanisms to be used in Implementation, if any:</b>	Comprehensive Emergency Management Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
<b>Alternatives:</b>	No Action	\$0	No change in flood damage potential to RL properties.
	Work with RL property owners on making their properties more resilient to flood damages	\$2,000	Not a long-term solution. Properties are located in flood-prone areas and are likely to continue to incur flood damages in the future. Erosion controls/other resiliency measures would likely need to be continually repaired or reconstructed in the future.
	Buy out RL properties	\$925,000	Most comprehensive approach. Removes existing structures that are likely to be damaged and prevents future development from occurring in these flood-prone areas.

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

## **Attachment B**

### **STAPLEE Table – Town of West Monroe**

## Worksheet #6

STAPLEE Criteria Consideration Table  
Mitigation Action Prioritization and ComparisonJurisdiction Town of West Monroe

Action ID	Action	S	T	A	P	L	E	E	Can action be easily implemented?	Does action achieve multiple plan objectives?	Can action be quickly implemented?	Level of action benefits	Level of action overall costs	Priority ranking
		+ = Benefit (favorable), - = Cost (unfavorable), 0 = Neutral or N/A										Levels = High, Medium, or Low		
West Monroe 1	Install generator at Town Hall/Highway Garage Complex	+	+	+	+	+	-	+	+	+	+	High	Low	High (#1)
West Monroe 2	Relocate the Town Highway Garage	0	+	+	+	+	+	+	-	+	-	High	High	High (#2)
West Monroe 3	Develop and distribute property resilience brochure to all Town residents	+	+	+	+	+	0	+	+	+	+	Low	Low	Med (#3)
West Monroe 4	Purchase and install an electronic sign for the Town Hall	+	+	+	+	+	-	+	+	+	+	High	Low	Med (#4)
West Monroe 5	Buy out properties with repetitive National Flood Insurance Program loss claims	0	+	+	-	+	-	+	-	+	-	High	High	Low (#5)