

Town of Parish

Jurisdictional Annex

Town of Parish

1.0 Contacts

The contacts for the Town of Parish regarding this plan are identified as follows:

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2.0 Municipal Profile

Population

The 2016 American Community Survey estimated that 2,455 people live in the Town of Parish. The Town's population has decreased by 8.9% since the 2000 Census population (2,694) (U.S. Census Bureau, 2016).

Location

The Town of Parish is located in the central portion of Oswego County and is bordered by the Town of Albion to the north, Amboy to the east, Mexico to the west, and Hastings and West Monroe to the south. The Town of Parish is centered the Interstate 81 corridor.

Brief History

The Town of Parish was formed in 1828 from Scriba's patent. The area was originally occupied by the Iroquois. Post-European settlement, logging was the main industry in the Town, and a number of sawmills were in operation during the late 1800s. Water power was especially important in industrial development, as the Town was situated along the Little Salmon River. By the 1870s, agriculture became the dominant industry, particularly crops (potatoes, apples) and dairy farming. The Syracuse Northern Railroad was constructed in Parish in 1870 and 1871 which helped to spur development (Swartz, White, and Clerkin, 2016).

Governing Body

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

Future Growth

The Town of Parish is seeking stable growth. Since the last County HMP (2012), no new commercial developments have been completed in the Town. A few new private residential properties have been developed during that time.

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 one (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
Severe Thunderstorm, Wind, or Tornado	3	1	3	3	High	2
HAZMAT in Transit	1	3	2	1	Moderate	3
Transportation Accident	1	3	2	2	Moderate	4
Severe Winter Storm	3	1	2	3	High	5
Wildfire	2	3	2	1	Moderate	6
Coastal Storm	3	1	2	2	Moderate	7
Fire	1	3	2	2	Moderate	8
Utility Failure	3	3	2	1	High	9
Epidemic	2	1	1	1	Low	10
HAZMAT Fixed	1	3	2	1	Moderate	11
Extreme Temps	3	1	1	3	Moderate	12
Drought	3	1	2	1	Moderate	13
Terrorism	1	3	2	1	Moderate	14
Flood	2	2	2	3	High	15
Earthquake	2	3	2	1	Moderate	16
Radiological Fixed	1	3	2	1	Moderate	17
Dam Failure	1	3	1	1	Moderate	18
Ice Jam	1	2	2	2	Moderate	19

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 Parish. The table below denote the number and locations of critical facilities within the Town.

Table 2: Critical Infrastructure in the Town of Parish			
Facility Name	Address (Street, Town/Town/Hamlet)	Parcel Located in Floodplain	Structure Located in Floodplain
Transportation Network			
Evacuation Routes	-	-	-
Bridges	-	-	-
Municipal Services			
NYSDOT Facility	NY-104 (just east of Mapleview)	No	No

Table 2: Critical Infrastructure in the Town of Parish			
Facility Name	Address (Street, Town/Town/Hamlet)	Parcel Located in Floodplain	Structure Located in Floodplain
Community Services			
Nazarene Church	2813 NY-69, Parish, NY 13131	No	No
American Legion 601	208 NY-69A, Parish, NY 13131	No	No
Bass Lake Resorts	132 Crim Rd, Parish, NY 13131	100YR	100YR
Mapleview Truck Stop	2023 NY-104, Parish, NY 13131	No	No
Grist Mill Truck Stop	3039 CR 26, Parish, NY 13131	No	No
Educational, Shelter and Evacuation Facilities			
Altmar-Parish-Williamstown Middle School	639 County Rt 22, Parish, NY 13131	No	No
Altmar-Parish-Williamstown High School	639 County Route 22, Parish, NY 13131	No	No
Dams			
Clayton Fellows Pond Dam	Trib. to Little Salmon River, off of CR 38	-	-
Slippery Corners Dam	Trib. to Little Salmon River, off of St. Mary's Rd	-	-
Whitney Pond Dam	N. Branch Little Salmon River off of Happy Valley Rd	-	-
Happy Valley Dam #6	Trib. to N. Branch Little Salmon River off of Happy Valley Rd	-	-

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 Parish. Climate change is expected to cause an increase in weather volatility, rising sea level, and greater temperature extremes. Properties along the Little Salmon River 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 Parish 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 Parish is susceptible to damages from an ice storm event.

Historical Hazard Occurrences and Damage Estimates

The Town of Parish was affected by the three (3) county-wide ice storm events recorded by the NCDRC, 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 Parish.

Future Potential Impacts

The Town of Parish 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 Severe Thunderstorm, Wind, or 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 susceptible 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 fifteen (15) specific severe storm events that occurred in the Town of Parish between 1994 and 2017 (frequency of about once every one to two years). Three (3) of these records were hail events (two events occurred on the same date), and twelve (12) were thunderstorm winds. Estimated damages for the Town of Parish ranged from \$5,000 to \$10,000 per event (Table 3). Actual damages were likely greater than those estimated by the NCDC.

Table 3: Severe Storm Event Records for the Town of Parish				
Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Thunderstorm Wind	6/29/1994	-	\$5,000	-
Thunderstorm Wind	6/27/2002	50 kts	\$10,000	-
Thunderstorm Wind	7/29/2002	50 kts	\$10,000	-
Thunderstorm Wind	8/29/2003	50 kts	\$10,000	-
Hail	4/29/2004	1 inch	\$10,000	-
Thunderstorm Wind	9/29/2005	50 kts	\$10,000	-
Thunderstorm Wind	7/3/2006	50 kts	\$10,000	-
Thunderstorm Wind	7/9/2007	50 kts	\$10,000	-
Thunderstorm Wind	5/16/2009	50 kts	\$10,000	-
Hail	5/29/2012	1 inch	\$5,000	\$5,000
Hail	5/29/2012	0.88 inches	-	-
Thunderstorm Wind	7/19/2013	50 kts	\$10,000	-
Thunderstorm Wind	6/20/2016	50 kts	\$10,000	-
Thunderstorm Wind	10/17/2016	50 kts	\$10,000	-
Thunderstorm Wind	8/22/2017	50 kts	\$8,000	-
Total			\$128,000	\$5,000

Future Potential Impacts

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

4.1.3 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 Parish 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 Parish 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 Parish.

Future Potential Impacts

The Town of Parish 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.

4.1.4 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 Parish 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 Parish experienced 0.9 to 1.3 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 records or damage estimates of wildfires within the Town of Parish. 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 Parish 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.

4.1.5 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 Parish 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 Parish 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 Parish. 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 Parish 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 Parish are generally used to extreme temperature events. The Town has emergency shelters established, several of which are designated warming stations that residents may use during extreme cold events.

4.1.6 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 Parish 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. Village and Town residents rely on public wells and are susceptible to low water yields during a drought. The Town and Village are currently looking to expand public water service to portions of the Town, which is included as a mitigation action in this plan update.

Historical Hazard Occurrences and Damage Estimates

There are no drought records specifically reported for the Town of Parish. The Town was impacted by a drought in the late summer and fall of 2016, which affected the entire County. No specific damage estimates are available for this event, however, Town representatives indicated that a number of private wells were reported to go dry, and crop losses likely occurred.

Future Potential Impacts

The entire Town of Parish 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.

4.1.7 Flood

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

Hazard Vulnerability

The Town is drained by the Little Salmon River and its tributaries, which drain to the Salmon River. 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 4 summarizes the amount of land within the Town of Parish that is located within 100-year and 500-year floodplains and low-risk flood areas.

Table 4: Summary of Areas in Floodplains (Source: FEMA DFIRM 2011)			
Town of Parish Total Area	Percent of Total Area		
	100-Year Floodplain	500-Year Floodplain	Area of Minimal Flood Hazard
25,824 acres	6.68%	0.00%	93.32%

Table 5 below summarizes the value of properties in the Town of Parish 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 5: 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	0	-	0	-
Commercial	1	\$49,500	0	-
Community Services	1	\$55,000	0	-
Industrial	0	-	0	-
Residential	106	\$9,902,340	0	-
Utility	1	\$1,459,600	0	-
Other**	105	\$536,100	0	-
Total	214	\$12,002,540	0	-

*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, in the past fifteen (15) years, one (1) flood record was noted to specifically impact the Town of Parish. This event occurred on September 30, 2010 and involved localized flooding caused by heavy precipitation that occurred the day before (3.2 inches fell overnight). Several roads were closed in the Town, and the NCDC

estimated total damages for this event in the Town of Parish to be \$8,000. 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, one (1) NFIP loss claim has been paid as of November 2017 in the Town of Parish totaling \$9,937.36. There are no repetitive loss properties in the Town of Parish.

Future Potential Impacts

Properties along streams throughout the Town, including the Little Salmon River and its tributaries are vulnerable to flooding. About 6.7% of the Town of Parish is within a mapped 100-year floodplain. In addition, one critical facility, a campground, is located on a parcel that intersects a 100-year floodplain (Table 2):

- Bass Lake Resorts

The campground totals approximately \$276,300 in value. The Town will continue to enforce local floodplain regulations in order to protect properties from damages as much as possible.

4.1.8 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 Parish 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 Parish. The Town of Amboy, which borders the Town of Parish to the east, 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 Parish 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.

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 Parish, an ice jam could occur along North Branch Little Salmon River, Little Salmon River, and their tributaries (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 Parish, these areas primarily consist of residential properties and vacant land.

Historical Hazard Occurrences and Damage Estimates

No ice jam records are available for the Town of Parish. The Town elected to profile this hazard for future planning considerations.

Future Potential Impacts

Tributaries to the Salmon River will continue to pose risks of ice jams in the Town of Parish. In the future, ice jams may occur more frequently due to climate change.

4.2 Technological Hazards

Technological hazards selected to be profiled by the Town of Parish are described in detail below.

4.2.1 HAZMAT in Transit

Hazard Vulnerability

Hazardous Materials (HAZMAT) in Transit events involve the uncontrollable release of flammable, toxic, corrosive, chemically instable, or combustible materials during transport that can damage infrastructure, pollute the environment, and/or cause injuries or death. The Town of Parish has two major transportation routes, Interstate 81 and State Route 69. Interstate 81 runs north to south in the western portion of the Town. State Route 69 runs east to west through the southern portion of the Town. In addition, the CSX Railroad crosses Railroad Street and State Route 69. This railroad is a freight line that may carry hazardous materials. A transportation accident involving hazardous materials on these roadways, or a train derailment could impact a portion of the Town of Parish.

Historical Hazard Occurrences and Damage Estimates

There are no specific records of HAZMAT in transit events in the Town of Parish. This hazard has been documented in other portions of the County (see main body of this plan update for details). However, the Town of Parish elected to include this hazard due to the moderate risk posed by Interstate 81, State Route 69, and the CSX Railroad which intersect the Town.

Future Potential Impacts

Although HAZMAT in transit events are infrequent, the Town remains susceptible to future HAZMAT incidents along Interstate 8, State Route 69, and the CSX railroad.

4.2.2 Transportation Accident

Hazard Vulnerability

For the purposes of hazard mitigation, a transportation accident is defined as an accident on land, water, or in the air resulting in mass casualties or a substantial loss of property. The Town of Parish has two (2) major transportation routes, Interstate 81 and State Route 69. Interstate 81 runs north to south in the western portion of the Town. State Route 69 runs east to west through the southern portion of the Town. These roadways are heavily travelled by trucks and there is potential for major accidents to occur, especially as a result of poor road conditions during a winter storm or ice storm. A transportation accident on these roadways has the potential to impact a portion of the Town of Parish.

Historical Hazard Occurrences and Damage Estimates

While minor vehicular accidents are relatively common throughout the County, there are no specific records of major transportation accidents in the Town of Parish (accidents involving mass casualties or substantial loss of property). The Town elected to profile this hazard due to the increased risk of this hazard occurring along major transportation routes.

Future Potential Impacts

Major transportation accidents are infrequent, but the Town remains susceptible to future incidents along Interstate 81 and State Route 69, particularly as a result of natural hazards such as a severe winter storm or ice storm. Transportation accidents do not pose a large risk to infrastructure, however, they are likely to cause injuries or loss of life. Maintaining roadway safety and clearly designating evacuation routes can aid in prevention of transportation accidents.

4.2.3 Fire

Hazard Vulnerability

The Town of Parish had a moderate vulnerability ranking for fires. These events tend to be more localized, affecting one (1) to several structures at a time. However, there is little to no warning and substantial structural damages and injuries or deaths are likely to occur. The central portion of the Town, which is most densely developed, would be the most vulnerable area for a fire event.

Historical Hazard Occurrences and Damage Estimates

Structural fires occur occasionally within the Town. A house fire reported in February 2017 on Crim Rd caused significant property damage and two (2) direct deaths.

Future Potential Impacts

The Town of Parish is largely undeveloped. The developed areas of the Town are most susceptible to structure fires. Development is concentrated along main roadways (State Route 69, County Route 26), and around the Village of Parish.

4.2.4 Utility Failure

Hazard Vulnerability

A utility failure involves the loss of electricity, natural gas supply, phone service, or water supply as a result of an internal system failure. While utility failures are often associated with natural hazard events, this hazard on its own does not include loss of utility access due to other disaster events. The Town of Parish primarily has overhead utility lines, including electric, phone, and cable networks and also has underground natural gas lines. A utility failure could impact the developed portion of the Town. The Town's vulnerability to utility failures was determined to be high due to the widespread extent and fast onset of a utility failure.

Historical Hazard Occurrences and Damage Estimates

The Town of Parish was impacted by a widespread electricity failure in 2003 that impacted much of the northeastern U.S., which resulted in power outages for about one (1) day. No specific utility failure records are available for the Town itself. The Town is more likely to experience utility failures associated with a severe storm, ice storm, or severe winter storm than a purely technologically-caused utility failure.

Future Potential Impacts

The Town will remain susceptible to utility failures in the future. However, the Town is more likely to encounter utility failures due to a natural hazard event than this hazard occurring on its own.

4.2.5 Epidemic

Hazard Vulnerability

Epidemics are defined as an outbreak of disease to an unusually large number of individuals or proportion of the population. Epidemics may include both human and animal illnesses. The Town of Parish was determined to have a low vulnerability risk for an epidemic event, since it has a relatively long onset, very low frequency, low damage potential, and may impact a moderate amount of the Town's population. The most vulnerable populations include young children under the age of five (5), older adults over the age of sixty-five (65), and those with existing medical conditions.

Historical Hazard Occurrences and Damage Estimates

There are no historical occurrences or impact estimates of epidemics specific to the Town of Parish. However, the Town elected to include this hazard in order to account for potential widespread illnesses such as influenza.

Future Potential Impacts

The risk of an epidemic occurring in the Town of Parish remains low, but it is possible and could affect a portion of the Town's population.

4.2.6 HAZMAT Fixed

Hazard Vulnerability

A fixed-site hazardous materials incident could occur at sites that store petroleum products or other chemicals for industrial or commercial use. The NYSDEC lists several petroleum bulk storage sites in the Town of Parish (Figure 1). These sites include the Maple View Truck Stop, NYSDOT facility, APW Jr/Sr High School, APW Elementary School, Parish Petro, and others within the Village of Parish. If a large petroleum spill were to occur at any of these locations, nearby properties may need to be evacuated to prevent human exposure and facilitate cleanup.

Historical Hazard Occurrences and Damage Estimates

There are no available records for explosions specifically in the Town of Parish. The Town elected to profile this hazard due to the presence of hazardous material storage facilities that store or use hazardous materials.

Future Potential Impacts

The Town remains susceptible to fixed-site hazardous material events, though they are a rare occurrence. Properties close to bulk storage facilities that store petroleum products or chemicals are at the most risk of being affected by a fixed-site hazardous materials incident.

4.2.7 Terrorism

Hazard Vulnerability

Terrorism is defined as the threat or use of violence for political or social gain. Terrorism typically causes community disruption and multiple injuries or deaths. The Town of Parish is moderately susceptible to a terrorist event due to the event's short onset (little to no warning) and moderate potential impact to Town infrastructure or residents.

Historical Hazard Occurrences and Damage Estimates

There are no records of terrorist events in the Town of Parish or Oswego County. The Town elected to profile this hazard for the HMP update to account for future potential impacts.

Future Potential Impacts

With the recent rise in localized terrorism events throughout the country such as shootings in schools and public places, the Town chose to analyze this hazard for the HMP update. However, terrorism remains a low risk for the Town of Parish. The Town is mostly rural, but does have two (2) schools (APW Jr/Sr High School and APW Elementary) that could potentially be the target of a terrorist attack.

4.2.8 Radiological Fixed Site

Hazard Vulnerability

A fixed-site radiological incident could occur at the Exelon Fitzpatrick Nuclear Power Plant or Ninemile Point Nuclear Power Plant which are located in the Town of Scriba, about fourteen (14) miles west of the Town of Parish. An accident at either nuclear plant may affect residents in the Town of Parish.

Historical Hazard Occurrences and Damage Estimates

There are no available records for radiological fixed site events in the Town of Parish or Oswego County. The Town elected to profile this hazard due to the nearby nuclear power plants and potential for numerous injuries or loss of life to occur.

Future Potential Impacts

The Town remains susceptible to radiological fixed-site events, though the risk is low.

4.2.9 Dam Failure

Hazard Vulnerability

Dam failures can be attributed to natural or man-made hazards. The impoundment of large volumes of water poses a threat; the failure of a dam can lead to catastrophic flooding.

The New York State Department of Environmental Conservation (NYSDEC) maintains a database to classify dams based on the event of a failure. Explanations of dam classifications are noted in Table 5.13 (Appendix A of the main body of the plan).

There are four (4) dams in the Town of Parish, all of which are Class A (low hazard) dams located on various streams. Clayton Fellows Pond Dam and Slippery Corners Dam are located on tributaries to the Little Salmon River. Whitney Pond Dam is located on the North Branch Little Salmon River, and Happy Valley Dam #6 is located on a tributary to the North Branch Little Salmon River. All four (4) dams are of earthen construction.

Historical Hazard Occurrences and Damage Estimates

There are no records of dam failures occurring in the Town of Parish. The Town elected to include this hazard due to the potential for damages to occur should any of the Class A dams within the Town fail.

Future Potential Impacts

Should any of the dams within the Town fail, properties immediately downstream would be susceptible to flooding.

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 Parish	Notes
Plans		
Comprehensive/Land Use Plan	X	Comprehensive Plan adopted June 16, 2011
Economic Development Plan	X	In place.
Post-disaster Recovery Plan	X	In place.
Watershed Protection Plan	X	In place.
Comprehensive Emergency Management Plan	X	In place.
Policies/Ordinances		
Building Codes	<ul style="list-style-type: none"> • 2010 Residential Code of NYS • 2010 Fire Code of NYS • 2010 Building Code of NYS • 2010 Existing Building Code of NYS • 2010 Energy Conservation Construction Code of NYS • 2010 Plumbing Code of NYS • 2010 Mechanical Code of NYS • 2010 Fuel Gas Code of NYS 	Town Code Enforcement Officer
Zoning Code	X	Local Law. Last revised July 21, 2011
Subdivision Regulations	X	Adopted.

Table 6. Planning Mechanisms and Capabilities		
Planning Mechanism	Town of Parish	Notes
Property Set-back Ordinance	X	In zoning.
Flood Regulations	X	Adopted.
Site Plan Review Requirements	X	In place.
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 the Village of Parish
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
Staff/Development		
Building Code Official	X	Code Enforcement Officer
Environmental Conservation Specialist	X	Joint Village and Town Planning Board position
Local Floodplain Administrator	X	Code Enforcement Officer
Public Information Official	X	Town Supervisor

5.2 Emergency Communications, Routes, and Shelters

The Town of Parish, along with Oswego County, utilize the HyperReach emergency communications system. Major transportation routes within the Town include Interstate 81 and State Route 69. The Town of Parish has one (1) established emergency shelter:

- Parish Volunteer Fire Co. – 16 Union Street, Parish, NY 13131
 - The shelter is ADA compliant and can accommodate people with special medical needs. The Fire Dept. would also allow pets during sheltering events as long as they are leashed or kept in a crate.

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 Parish 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**

- Merrill Park – off of CR 38, Parish, NY
- Bass Lake Resort – 132 Crim Rd, Parish, NY 13131
- APW High School & Elementary School Athletic Fields – 639-640 CR 22, Parish, NY 13131
- **Potential Permanent Housing Locations**
 - Merrill Park – off of CR 38, Parish, NY

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 Parish currently participates in the NFIP. As of November 2017, the Town had two (2) flood insurance policies in-force covering a total of \$560,000. Three (3) NFIP claims have been made in the Town of Parish as of November 2017. Two (2) of these claims were closed without payment. The remaining claim was closed with a payment of \$9,937.36. There are no repetitive loss properties within the Town of Parish.

The Town’s Code Enforcement Officer serves as the Local Floodplain Administrator, and flood maps are available for viewing and copying at the Village Gym (2938 East Main Street, Parish, NY 13131). 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. 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.

7.0 Mitigation Strategy and Prioritization

7.1 Past, Completed, and Ongoing Initiatives

The Town proposed one (1) mitigation action in the 2012 Oswego County HMP and its status is summarized in Table 7. The Town’s 2012 mitigation action was not re-included for the 2018 update.

Table 7. 2012 Hazard Mitigation Actions <i>Town of Parish</i>				
Proposed Mitigation Action	Hazard(s) Mitigated	Goals and Objectives Met	Implementing Agency	Status
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, Municipal Boards and Highway/DPW, NYSDOT	The Town did not individually complete this action, but emergency signage was established along I-81 by the NYSDOT.

7.2 Proposed Mitigation Actions

The Town proposed four (4) new mitigation actions to be included in the HMP update. Two of these actions are joint projects with the Village of Parish. These actions are described in Table 8, below and on worksheets included in Attachment A.

Table 8. 2018 Proposed Mitigation Actions Town of Parish									
Action ID	Mitigation Action	Hazard(s) Mitigated	Implementing Agencies (Lead* & Support)	Planning Mechanism	Timeframe	New or Existing Development	Estimated Cost	Funding Source(s)	Priority
Parish Town 1	Provide backup power for Church of Nazarene (shelter location)	All	Town Supervisor*	Comprehensive Emergency Management Plan	5 years	Existing	\$5-10K	FEMA- PDM; USDA-RD-Community Facilities Grant	1 (High)
Parish Town 2*	Develop action plan for snow clearing and storage	Severe Winter Storm	Town Highway Superintendent*	Comprehensive Emergency Management Plan	1-2 years	Existing	\$5,000	Town budget	2 (High)
Parish Town 3*	Construct Water District No. 1 to supply critical facilities and residents with municipal water	Water Supply Contamination, Severe Storms	Town Planning Board*, Village Planning Board	Comprehensive Plan	5 years	Existing	\$17 million +	NYSEFC- DWSRF; USDA-RD - Water & Waste Disposal	4 (High)
Parish Town 4	Establish public warning and outreach system	All	Town Supervisor*	Comprehensive Emergency Management Plan	5 years	Existing	\$10,000	FEMA- PDM	5 (Low)
<p>*Shared action with the Village of Parish</p> <p>Potential Funding Sources</p> <p>FEMA PDM: https://www.fema.gov/pre-disaster-mitigation-grant-program</p> <p>NYSEFC DWSRF: https://www.efc.ny.gov/DWSRF</p> <p>USDA-RD Water & Waste Disposal Loan and Grant Program: https://www.rd.usda.gov/programs-services/water-waste-disposal-loan-grant-program</p> <p>USDA-RD Community Facilities Grant: https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program</p>									

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**

Swartz, Bridget, White, Sharon, and Clerkin, Janet. 2016. “Town and Village of Parish”. *History of Oswego County, New York, Marking the Bicentennial*. Eds Shawn Doyle, Roy Reehil, Debra Allen, Justin White, Janet Clerkin, Kelly Jordal, and Kara Alheim. Oswego, NY: Oswego County, New York, 2016. 98-103. Print.




U.S. Census Bureau. 2016. “Summary File.” 2012 – 2016 American Community Survey. U.S. Census Bureau’s American Community Survey Office, 2016. Web. Accessed 5 September 2018. Available from: <https://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml>

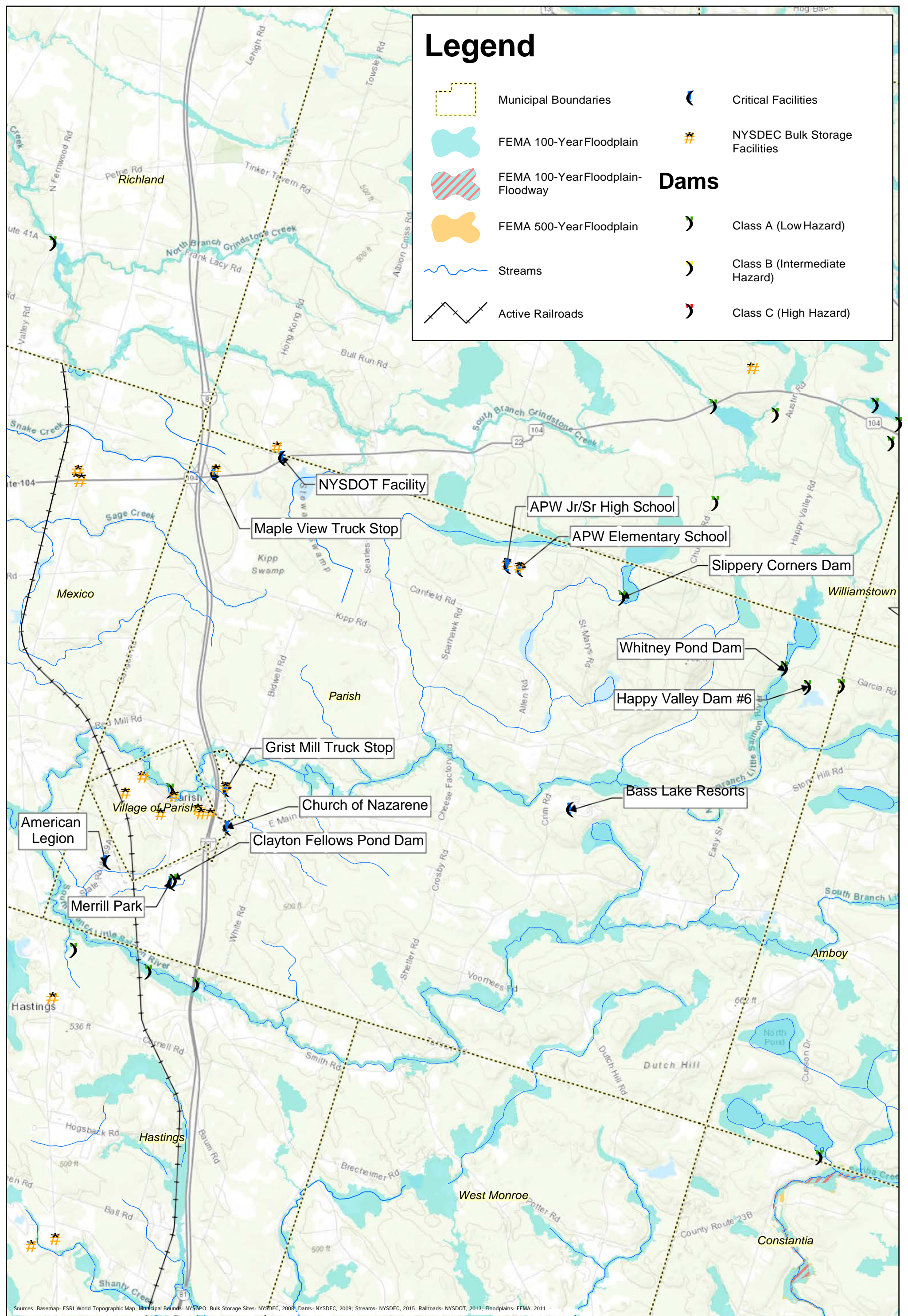
Figure 1
**Hazard Area Extent and Location Map –
Town of Parish**

Legend

-  Municipal Boundaries
-  FEMA 100-Year Floodplain
-  FEMA 100-Year Floodplain-Floodway
-  FEMA 500-Year Floodplain
-  Streams
-  Active Railroads
-  Critical Facilities
-  NYSDEC Bulk Storage Facilities

Dams

-  Class A (Low Hazard)
-  Class B (Intermediate Hazard)
-  Class C (High Hazard)



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 Parish**

Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of Parish
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Mitigation Action Worksheet

Project Name:	Provide backup power for Church of Nazarene (shelter location)
Project Number:	Parish Town 1

Risk/Vulnerability

Hazard of Concern:	Severe Storm, Ice Storm, Utility Failure
Description of the Problem:	Currently the Church of Nazarene lacks a backup power source. This is one of the Town's emergency shelter locations. Lack of power can limit the Town's ability to shelter residents during hazard events.

Action of Project Intended for Implementation

Description of the Solution:	Install generator to maintain operations during hazards with power outages and provide better sheltering conditions within Town.
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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.)

Level of Protection:	High	Estimated Benefits (losses avoided):	Maintain shelter operations during power outages, better protection of residents.
Useful Life:	10-15 years		
Estimated Cost:	\$5,000 to \$10,000		

Plan for Implementation

Prioritization:	#1 (High)	Desired Timeframe for Implementation:	1-5 years
Estimated Time Required for Project Implementation:	6 months -1 year	Potential Funding Sources:	FEMA- PDM; USDA-RD-Community Facilities Grant
Responsible Organization:	Parish Town Supervisor	Local Planning Mechanisms to be used in Implementation, if any:	Comprehensive Emergency Management Plan

Three Alternatives Considered (Including No Action)

	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	Church at risk of losing power and be unable to serve as an emergency shelter during hazard events.
	Purchase portable generators to be shared among multiple facilities.	\$10,000	May not be available for a certain facility when needed, requires more coordination for use
	Install permanent generator at Church of Nazarene	\$5,000 to \$10,000	Enhance sheltering ability at church during hazard events.

Progress Report (for Plan Maintenance)

Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of Parish
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Mitigation Action Worksheet

Project Name:	Develop action plan for snow clearing and storage
Project Number:	Parish Town 2

Risk/Vulnerability

Hazard of Concern:	Severe Winter Storm
Description of the Problem:	Currently the Town lacks room to store cleared snow. In addition, many residents require assistance shoveling roofs after snow storms.

Action of Project Intended for Implementation

Description of the Solution:	Designate location(s) for snow storage and implement a snow clearing action plan and protocol.
-------------------------------------	--

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.)

Level of Protection:	#2 (High)	Estimated Benefits (losses avoided):	Improved safety of residents and people traveling through the Town during heavy snow events.
Useful Life:	Medium- 5 years (ongoing)		
Estimated Cost:	Low- \$5,000		

Plan for Implementation

Prioritization:	#2 (High)	Desired Timeframe for Implementation:	1-2 years
Estimated Time Required for Project Implementation:	6 months -1 year	Potential Funding Sources:	Town Budget
Responsible Organization:	Town Highway Superintendent	Local Planning Mechanisms to be used in Implementation, if any:	Comprehensive Emergency Management Plan

Three Alternatives Considered (Including No Action)

	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	Lack snow storage space- existing issues remain
	Develop a plan only for snow storage	\$2,500	Better roadway safety/accessibility
	Develop a plan for snow storage and residential clearing assistance	\$5,000	Maximize protection of residents

Progress Report (for Plan Maintenance)

Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of Parish
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Mitigation Action Worksheet

Project Name:	Construct Water District No. 1 to supply critical facilities and residents with municipal water
Project Number:	Parish Town 3

Risk/Vulnerability

Hazard of Concern:	Water Supply Contamination, Severe Storms
Description of the Problem:	Many residents and Town/Village facilities are dependent on private water wells which exhibit poor water quality. Water contamination can be an issue during flooding events.

Action of Project Intended for Implementation

Description of the Solution:	Provide municipal water service to Town and Village residents (Water District No. 1)
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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.)

Level of Protection:	High	Estimated Benefits (losses avoided):	Better equip critical facilities with utilities (no lack of water - better sheltering abilities), reduce water contamination risks for residents. Maintain availability of water service during hazard events.
Useful Life:	40-50 years		
Estimated Cost:	\$17 million +		

Plan for Implementation

Prioritization:	#3 (High)	Desired Timeframe for Implementation:	1-5 years
Estimated Time Required for Project Implementation:	3 years	Potential Funding Sources:	NYSEFC- DWSRF; USDA-RD - Water & Waste Disposal
Responsible Organization:	Town Planning Board	Local Planning Mechanisms to be used in Implementation, if any:	Comprehensive Plan

Three Alternatives Considered (Including No Action)

	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	.Risk of water supply loss and contamination remain.
	Treat well water at critical facilities	Medium	Much cheaper, improves water quality but not a long-term solution. Water service can still be lost during hazard events. No change to water issues experienced by residents.
	Construct Water District No. 1	\$17 million	Critical facilities and residents dependent on private wells have access to public water supply, which would be maintained during hazard events and pose less of a contamination risk.

Progress Report (for Plan Maintenance)

Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of Parish
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Mitigation Action Worksheet

Project Name:	Establish public warning and outreach system
Project Number:	Parish Town 4

Risk/Vulnerability

Hazard of Concern:	All
Description of the Problem:	Currently the Town lacks a means of communicating to the public regarding emergency preparedness and shelter availability during hazard events.

Action of Project Intended for Implementation

Description of the Solution:	Establish outreach protocol for public education regarding shelter locations. In addition, establish an online public communication system that people can use to locate shelters and view hazard warnings
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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.)

Level of Protection:	#4 (High)	Estimated Benefits (losses avoided):	Public is better informed of what to do and where they can go during hazard events.
Useful Life:	Ongoing action		
Estimated Cost:	\$10,000		

Plan for Implementation

Prioritization:	#4 (High)	Desired Timeframe for Implementation:	1-5 years
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	FEMA- PDM
Responsible Organization:	Town Planning Board	Local Planning Mechanisms to be used in Implementation, if any:	Comprehensive Emergency Management Plan

Three Alternatives Considered (Including No Action)

	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	Many residents remain unaware of emergency preparedness/shelter options.
	Establish outreach program re: shelter locations and emergency preparedness	\$5,000	Residents informed of shelter locations but may not know when they can use them.
	Establish public communication system that people can use to locate shelters and view hazard warnings	\$10,000	Maximizes public benefit- people warned of potential hazards and know where shelters are/when they are open for use.

Progress Report (for Plan Maintenance)

Date of Status Report:	
Report of Progress:	
Update Evaluation of the Problem and/or Solution:	

Attachment B

**STAPLEE Table –
Town of Parish**

Worksheet #6

STAPLEE Criteria Consideration Table
Mitigation Action Prioritization and Comparison

Jurisdiction Town of Parish

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	
Parish Town 1	Provide backup power for Church of Nazarene (shelter location)	+	+	+	+	+	0	0	+	+	0	High	Low	High (#1)
Parish Town 2*	Develop action plan for snow clearing and storage	+	0	+	+	+	0	0	+	+	+	High	Low	High (#2)
Parish Town 3*	Construct Water District No. 1 to supply critical facilities and residents with municipal water	0	+	-	+	0	-	0	-	+	-	High	High	High (#3)
Parish Town 4	Establish public warning and outreach system	+	+	0	+	+	0	0	+	+	-	High	Low	Med (#4)

*Shared action with Village of Parish