

Village of Pulaski

Jurisdictional Annex

Village of Pulaski

1.0 Contacts

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

- Angel Rodriguez – Mayor
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- Michele A. Cusyck – Village Clerk
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2.0 Municipal Profile

Population

The 2016 American Community Survey estimated that 2,214 people live in the Village of Pulaski. The Village's population has decreased by 7.7% compared with the 2000 Census population (2,398) (U.S. Census Bureau, 2016).

Location

The Village of Pulaski is located in the northern portion of the Town of Richland in northern Oswego County. Pulaski is located directly off of Interstate 81.

Brief History

The Village of Pulaski was formed in 1832. The Village is located on the Salmon River, which was an important location for fishing as well as manufacturing, as many early industries relied on water power. A number of industrial facilities have been established in the Village since the mid-1800s, and two (2) remain (Schoeller Technical Paper and Fulton Companies). In 1881, a fire destroyed the entire commercial corridor along Jefferson Street. Stores were rebuilt and the block is now included on the National Register of Historic Places (Morrow, 2016). Tourism is a significant contributor to the local economy. Today, the Village is known for sport

fishing. In addition to the Salmon River, the Village is close to Lake Ontario, both of which are popular fishing destinations.

Governing Body

The Village of Pulaski is governed by a five (5) member Village Board, led by the Mayor. Residents of Pulaski are also part of the Town of Richland, which is also governed by a five (5) member Town Board led by the Town Supervisor.

Future Growth

The majority of the Village consists of developed residential and commercial properties. The Salmon River runs through the center of the Village. Since the last County HMP (2012), the Village of Pulaski has had new commercial and residential developments. A hotel is planned to open at the former Eddy's Place restaurant (currently closed). In addition, the Village's Ringgold Field (part of the Fire Department's property) was recently sold and is planned to be developed into a senior housing complex.

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
Flood	2	2	3	3	High	1
Ice Jam	2	2	3	2	High	2
Ice Storm	3	1	3	2	High	3

Table 1: Hazard Vulnerability by Event						
Hazard Event	Extent	Onset	Impact (Damages and Injury)	Frequency	Vulnerability Rank	Jurisdiction Rank
Severe Winter Storm	3	1	2	3	High	4
HAZMAT Transit	1	3	1	1	Moderate	5
Severe Thunderstorm, Wind, Tornado	3	1	3	3	High	6
Transportation Accident	1	3	2	2	Moderate	7
Utility Failure	3	3	2	1	High	8
Fire	1	3	2	2	Moderate	9
Explosion	1	3	2	1	Moderate	10
Structural Collapse	1	3	2	1	Moderate	11
Dam Failure	1	3	1	1	Moderate	12
Water Supply Contamination	3	3	2	1	High	13
Radiological Transit	1	3	2	1	Moderate	14

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 Village of Pulaski. The table below denote the number and locations of critical facilities within the Village.

Table 2: Critical Facilities in the Village of Pulaski			
Facility Name	Address (Street, Town/Village/Hamlet)	Parcel Located in Floodplain	Structure Located in Floodplain
Transportation Network			
Evacuation Routes	-	-	-
Bridges	-	-	-
Public Utilities			
Cell Tower	5010 N Jefferson St, Pulaski, NY 13142	No	No
Frontier Communications	13 Broad St, Pulaski, NY 13142	No	No
National Grid Gas Measuring Station	149 Lake St	100YR, 500YR	No
National Grid Property	5010 N Jefferson St, Pulaski, NY 13142	No	No
National Grid Substation	126 Lake St	No	No
Pulaski Sewage Treatment Plant	48 Riverview Dr, Pulaski, NY 13142	100YR, 500YR	No
Sanitary Sewer Pump Station	off of River St	100YR	100-Year
Sanitary Sewer Pump Station	off of Forest Dr	No	No

Table 2: Critical Facilities in the Village of Pulaski			
Facility Name	Address (Street, Town/Village/Hamlet)	Parcel Located in Floodplain	Structure Located in Floodplain
Suburban Oil Inc.	off of NY-13	No	No
Water Tower	intersection of CR 2A and CR 2	100YR, 500YR	No
Municipal Services			
Pulaski Village DPW Garage	14 Riverview St, Pulaski, NY 13142	100YR, 500YR	No
Pulaski Village Hall	4917 Jefferson St, Pulaski, NY 13142	No	No
Richland Highway Garage	7 Laveck Dr, Pulaski, NY 13142	No	No
Richland Town Hall	1 Bridge St, Pulaski, NY 13142	No	No
Emergency and Medical Services			
NYS Police	3273 CR 2, Pulaski, NY 13142	100YR, 500YR	No
Pulaski Village Police Dept.	4917 Jefferson St, Pulaski, NY 13142	No	No
Northern Oswego County Ambulance, Inc.	21 Delano St, Pulaski, NY 13142	No	No
Ringgold Fire Co.	12 Lake St, Pulaski, NY 13142	No	No
Pulaski Health Center	61 Delano St, Pulaski, NY 13142	100YR, 500YR	No
Pulaski Urgent Care	108 North St, Pulaski, NY 13142	No	No
Community Services			
Haldane Memorial Arena	16 Maple Ave Ext, Pulaski, NY 13142	100YR, 500YR	100YR
U.S. Postal Service	4909 Jefferson St, Pulaski, NY 13142	No	No
American Legion	3350 Maple Ave, Pulaski, NY 13142	No	No
Springbrook Apartments	4920 Jefferson St, Pulaski, NY 13142	No	No
Town & Country Trailer Park	3839 NY-13 Pulaski, NY 13142	100YR	No
Little Luke's Daycare	20 Castle Dr, Pulaski, NY 13142	100YR	No
ARISE	2 Broad St, Pulaski, NY 13142	No	No
Oswego County Opportunities	9 Salmon Meadow Ln, Pulaski, NY 13142	No	No
Educational, Shelter and Evacuation Facilities			
Lura Sharp Elementary School	2 Hinman Rd, Pulaski, NY 13142	No	No
Pulaski Bus Garage	4662 Salina St, Pulaski, NY 13142	100YR	No
Industrial Facilities			
Fulton Company- Boilers	3981 Port St, Pulaski, NY 13142	No	No
Fulton Company- Solitec	3951 Port St, Pulaski, NY 13142	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 Village of Pulaski. Climate change is expected to cause an increase in weather volatility, rising sea level, and greater temperature extremes. Properties along the Salmon River are likely to experience increased flooding occurrences. The Village of Pulaski has taken the pledge to become a Climate-Smart Community and developed a joint Climate Action Plan with the Town of Richland in 2016.

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 Village of Pulaski are described in detail below.

4.1.1 Flood

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

Hazard Vulnerability

The Village generally drains 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 3 summarizes the amount of land within the Village of Pulaski 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)			
Village of Pulaski Total Area	Percent of Total Area		
	100-Year Floodplain	500-Year Floodplain	Area of Minimal Flood Hazard
2,319.8 acres	10.31%	0.81%	88.87%

Table 4 below summarizes the value of properties in the Village of Pulaski 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	0	-	0	-
Commercial	31	\$5,829,174	18	\$4,238,372
Community Services	6	\$2,831,353	5	\$2,553,553
Industrial	0	-	0	-
Residential	81	\$5,391,934	66	\$4,214,980
Utility	6	\$2,871,949	3	\$2,430,833
Other**	47	\$1,302,817	30	\$1,027,987
Total	171	\$18,227,227	122	\$14,465,725

*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 ten (10) years, one (1) flood record was noted to specifically impact the Village of Pulaski. This event occurred on September 30, 2010 and involved flash flooding along the Salmon River. The flash flood was caused by heavy precipitation the day before (3.2 inches fell overnight) and the release of approximately 17,000 CFS of water from two (2) Brookfield Power hydroelectric dams. This event caused significant damages to a retaining wall along the Salmon River in the Village of Pulaski. The NCDC estimated total damages for this event to be \$100,000. The Village of Pulaski replaced the damaged retaining wall in 2014, with a total cost of approximately \$1 million.

As described in Section 6.0 of this annex, four NFIP loss claims have been paid as of November 2017 in the Village of Pulaski totaling \$1,345.00. There are no repetitive loss properties in the Village of Pulaski. The Village has also been impacted by numerous county-wide events described in Section 5.1.2 of the main body of the Plan.

Future Potential Impacts

Properties along the Salmon River, which flows through the center of the Village, and its tributaries are vulnerable to flooding. Multiple critical facilities are located on parcels that intersect the 100-year and/or 500-year floodplain, but the structures themselves are outside of a mapped floodplain (Table 2). Two (2) of the Village’s critical facilities are located within a mapped 100-year floodplain:

- Haldane Memorial Arena

- Sanitary Sewer Pump Station (off of River St)

Together, these facilities total approximately \$936,700 in value. Village representatives indicated that they have not experienced any flooding issues at the River St Pump Station since it has been in operation. In addition, the dry well pit that the pumps are located in can flood without disrupting pump operation as the pumps are dry pit submersibles with all of the controls and power feeds coming from the generator building. Flooding has occurred along Maple Ave in recent years, but has not directly impacted Haldane Memorial Arena.

The Village's floodplain ordinance (Local Law No. 1 of 2013) indicates that no new critical facilities are to be constructed within a 100-year or 500-year floodplain. The Village will continue to enforce local floodplain regulations in order to protect properties from damages as much as possible.

4.1.2 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 Village of Pulaski, an ice jam could occur along the Salmon River or its 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 4.1.1. In the Village of Pulaski, these areas primarily consist of commercial and residential properties.

Historical Hazard Occurrences and Damage Estimates

In the winter of 2018, an ice jam occurred on a Tributary to the Salmon River and resulted in flooding downstream. Multiple homes along Maple Ave were impacted during this event, and flooded roads prevented access to Haldane Memorial Arena (the Area itself did not incur flood impacts).

Future Potential Impacts

The Salmon River and its tributaries will continue to pose risks of ice jams in the Village of Pulaski. In the future, ice jams may occur more frequently due to climate change.

4.1.3 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 Village of Pulaski is susceptible to damages from an ice storm event.

Historical Hazard Occurrences and Damage Estimates

The Village of Pulaski 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 Village of Pulaski.

Future Potential Impacts

The Village of Pulaski will continue to experience ice storm events in the future, as will the rest of Oswego County. The Village Dept. of Public Works completes tree maintenance within Village 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.

4.1.4 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 Village of Pulaski is susceptible to damages from a severe winter storm event. The Village Dept. of Public Works clears Village streets during heavy snow events, and the Village works with the Town of Richland Highway Dept., 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 Village of Pulaski 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 Village of Pulaski.

There is no record of any severe winter storms that have explicitly impacted the Village of Pulaski, however, the Village has been impacted by many of the recorded occurrences within Oswego County. Information on county-wide severe winter storm records can be found in the main body of the document.

Future Potential Impacts

The Village of Pulaski 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 Severe Thunderstorm, Wind, Tornado

For a description of this hazard, please see Section 5.1.1 of the main body of the Plan.

Hazard Vulnerability

The entire Village is susceptible to damages from a severe thunderstorm, wind, or tornado 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 nine (9) specific severe storm events that occurred in the Village of Pulaski from 1993 to 2013 (frequency of about once every two years). All of these records were thunderstorm winds, and estimated damages ranged from \$10,000 to \$500,000 (Table 5). Actual damages were likely greater than those estimated by the NCDC.

Event Type	Date	Magnitude	Estimated Property Damage
Thunderstorm Wind	8/31/1993	-	\$500,000
Thunderstorm Wind	8/23/1998	-	\$10,000
Thunderstorm Wind	8/1/2000	-	\$20,000
Thunderstorm Wind	7/22/2002	50 kts	\$10,000
Thunderstorm Wind	7/13/2005	50 kts	\$10,000

Event Type	Date	Magnitude	Estimated Property Damage
Thunderstorm Wind	6/19/2007	50 kts	\$10,000
Thunderstorm Wind	7/11/2007	50 kts	\$10,000
Thunderstorm Wind	6/10/2008	50 kts	\$35,000
Thunderstorm Wind	7/19/2013	50 kts	\$10,000
Total			\$615,000

Future Potential Impacts

Severe storms are a common event in the Village of Pulaski and will continue to occur in the future. The frequency and magnitude of severe storm events may be increased due to climate change.

4.2 *Technological Hazards*

Technological hazards selected to be profiled by the Village of Pulaski are described in detail below.

4.2.1 HAZMAT 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 Village of Pulaski contains several major transportation routes (Interstate 81, U.S. Route 11, and State Route 13) that are used for the transport of hazardous materials. Interstate 81 and U.S. Route 11 run north to south in the eastern portion of the Village. State Route 13 runs east to west through the center of the Village. A transportation accident involving hazardous materials on any of these routes has the potential to impact a portion of the Village of Pulaski. In addition, the CSX Railroad corridor is located in the southern portion of the Village. This portion of the railroad is a freight-only line and transports a number of goods, including hazardous materials such as oil or chemicals. A train derailment or accident could release hazardous materials in a portion of the Village.

Historical Hazard Occurrences and Damage Estimates

There are no specific records of HAZMAT in transit events in the Village of Pulaski. This hazard has been documented in other portions of the County (see main body of this plan

update for details). However, the Village of Pulaski elected to include this hazard due to the moderate risk posed by major transportation routes that run directly through the Village.

Future Potential Impacts

Although HAZMAT in transit events are infrequent, the Village remains susceptible to future HAZMAT incidents along major transportation routes.

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 Village of Pulaski contains several major transportation routes (Interstate 81, U.S. Route 11, and State Route 13). Interstate 81 and U.S. Route 11 run north to south in the eastern portion of the Village. 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 any of these routes has the potential to impact a portion of the Village of Pulaski.

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 Village of Pulaski (accidents involving mass casualties or substantial loss of property). The Village 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 Village remains susceptible to future incidents along major transportation routes, 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 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 Village of Pulaski primarily has overhead utility lines, including electric, phone, and cable networks and also has underground natural gas lines and a public water supply system. A utility failure could impact the entire developed portion of the Village. The Village'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 Village of Pulaski 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 Village itself. The Village 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 Village will remain susceptible to utility failures in the future. However, the Village is more likely to encounter utility failures due to a natural hazard event than this hazard occurring on its own.

4.2.4 Fire

Hazard Vulnerability

The Village of Pulaski had a moderate vulnerability ranking for fires. These events tend to be more localized, affecting one 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 Village, 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 Village. A fire at a motel/apartment building in Pulaski in December 2009 resulted in one (1) death and left four (4) other people homeless, in addition to substantial property damages. A house fire reported in April 2012 involved nineteen (19) fire departments, including Ringgold Fire Co. The fire destroyed one (1) home, but no other buildings were involved and no injuries were reported.

Future Potential Impacts

The Village of Pulaski is heavily developed, particularly within the center of the Village, and remains susceptible to structure fires.

4.2.5 Explosion

Hazard Vulnerability

Explosions have the greatest potential to occur at fixed sites that store hazardous materials. The NYSDEC lists a number of bulk storage sites (including petroleum bulk storage, major oil storage facilities, and chemical bulk storage facilities) within the Village of Pulaski (Figure 1). These sites include gas stations, auto shops, municipal buildings (highway garage, wastewater treatment plant), industrial facilities, and other commercial entities. An explosion has the potential to occur at any of these sites storing petroleum products or other flammable chemicals.

Historical Hazard Occurrences and Damage Estimates

There are no available records for explosions specifically in the Village of Pulaski. In March 2007, a stolen propane delivery truck crashed on a street in the Village of Pulaski, next to the Salmon River. While the propane tank remained intact during the accident, the potential for an explosion while it was recovered led to a voluntary evacuation of a two (2) mile radius, which took several hours as police and fire agencies went door-to-door to inform neighboring residents of the event. The Village elected to profile this hazard due to the presence of hazardous material storage facilities and industrial facilities that store or use combustible materials.

Future Potential Impacts

The Village remains susceptible to explosions, though they are a rare occurrence. Properties close to bulk storage facilities that store combustible materials are at the most risk of being affected by an explosion.

4.2.6 Structural Collapse

Hazard Vulnerability

A structural collapse involves a structural failure of a building, bridge, or other infrastructure that threatens human life and health. The Village of Pulaski is moderately vulnerable to a structural collapse. Though this event would only affect a small area within the Village, there is little to no warning and it presents significant damages and injury risks. The Village contains multiple bridges (crossing the Salmon River, Spring Brook or roadway overpasses) on Interstate 81, US-11, NY-13, and several local roads. In addition, approximately 44% of housing units in the Village were built in 1939 or earlier (U.S. Census Bureau, 2016). Older structures are more vulnerable to structural collapse than newer structures.

Historical Hazard Occurrences and Damage Estimates

There are no specific structural collapse records for the Village of Pulaski. However, the Village elected to profile this hazard due to the presence of vulnerable infrastructure.

Future Potential Impacts

Structural collapse is not a high-risk hazard for the Village, but it could occur particularly during a natural hazard event such as a winter storm, severe storm, or ice storm resulting in hundreds of thousands of dollars in damages and potentially injuries or loss of life.

4.2.7 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).

The Village of Pulaski contains one (1) dam on the Salmon River (Pulaski Dam), which is classified as a Class B intermediate hazard dam. This dam impounds a recreational pond with a normal capacity of 47 acre-feet. The dam has a length of 100 feet and is 15 feet high, for a capacity of 54 acre-feet. The dam consists of earth and concrete structures. The Pulaski Dam was issued a high impact warning through the NYS Comptroller's Office in 2018, and it is in need of replacement.

Historical Hazard Occurrences and Damage Estimates

There are no records of dam failures occurring in the Village of Pulaski. The Village elected to include this hazard due to the potential for significant damages to occur should the Class B dam on the Salmon River fail.

Future Potential Impacts

Should the dam fail, properties immediately downstream of the dam would be susceptible to flooding.

5.0 Capability Assessment

5.1 Planning and Regulatory Capability

The Village’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	Village of Pulaski	Notes
Plans		
Comprehensive/Land Use Plan	X	Town of Richland and Village of Pulaski Comprehensive Plan (2011) The Town and Village are currently in the process of finalizing an update to their 2011 Joint Comprehensive Plan.
Post-disaster Recovery Plan	X	In place.
Watershed Protection Plan	X	In place.
Capital Improvement 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 Exiting 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 	Village Code Enforcement Officer
Zoning or Land Use Codes	X	Last updated in 2014
Subdivision Regulations	X	Adopted.
Property Set-back Ordinance	X	In zoning.
Flood Regulations	X	Adopted.
Stormwater Ordinance	X	Adopted.
Site Plan Review Requirements	X	In place. Village 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	Dept. of Public Works responsible
Storm Drainage Maintenance Program	X	Dept. of Public Works responsible
Mutual Aid Agreements	X	Agreements with the Town of Richland
Studies/Reports		
Hazard Analysis/Risk Assessment	X	2012 Oswego County Hazard Mitigation Plan

Table 6. Planning Mechanisms and Capabilities		
Planning Mechanism	Village of Pulaski	Notes
Floodplain Maps and/or Studies	X	2011 FEMA Digital Flood Insurance Rate Maps
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 Village of Pulaski, along with Oswego County, utilize the HyperReach emergency communications system. Major transportation routes within the Village include Interstate 81, U.S. Route 11, and State Route 13. The Village of Pulaski has three (3) established emergency shelters:

- Lura Sharp Elementary School – 2 Hinman Road, Pulaski, NY 13142
- Pulaski Junior/Senior High School – 4624 Salina Street, Pulaski, NY 13142

The Fire Hall and both schools are ADA-compliant. The Village currently does not have any emergency sheltering accommodations in place for pets.

5.3 Temporary and Permanent Housing Locations

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

- **Potential Temporary Housing Locations**
 - Lura Sharp Elementary School Athletic Field - 2 Hinman Road, Pulaski, NY 13142
 - Pulaski Middle & High School Athletic Fields - 4624 Salina Street, Pulaski, NY 13142
 - Snowbelt Community Center Athletic Fields - 16 Maple Ave Ext, Pulaski, NY 13142
 - Dunbar Field- off of Lewis Street

- **Potential Permanent Housing Locations**
 - Vacant property next to Ponderosa - off of NY-13
 - Vacant property across from Pulaski High School - off of US-11
 - Pulaski Executive Development properties- off of Hinman Road

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 Village of Pulaski currently participates in the NFIP. As of November 2017, the Village had sixteen (16) flood insurance policies in-force, with a total coverage amount of \$3,401,200, and seven (7) NFIP claims have been filed within the Village. Of these claims, one (1) remains open, and two (2) were closed without payment. The four (4) paid claims totaled \$1,345.00. There are no repetitive loss properties within the Village of Pulaski.

The Village's Code Enforcement Officer serves as the Local Floodplain Administrator, and flood maps are available for viewing and copying at the Village Offices (4917 Jefferson

Street, Pulaski, NY 13142). The Village has been maintaining NFIP participation by performing the duties and actions that were listed in the local laws adopted by the Village Board (Local Law #1 of 2013). The Village 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 Village has completed several mitigation projects since the publication of the previous Oswego County HMP. The River House Restaurant, located on Salina Street near the Salmon River, was raised above the floodplain elevation to mitigate flooding issues. The Village proposed six (6) 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 Village of Pulaski were re-included for the 2018 update.

Proposed Mitigation Action	Hazard(s) Mitigated	2012 Goals & Objectives Met	Implementing Agency	Status
Implement response protocols to remove debris jams from waterways	Flood	3-c	County DPW, Municipal DPW/ Highway, Fire Depts., Canal Corps, USACE	Not implemented- no longer a priority concern
Implement response protocols to remove ice jams from waterways	Ice jam	4-d, 4-e, 5-a, 5-e	County DPW, Municipal DPW/ Highway, Fire Depts., Canal Corps, USACE	Not implemented- no longer a priority concern
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	Not implemented by Village, but variable signage was installed along I-81 by NYSDOT since 2012 HMP was completed
Repair/replace retaining wall between private properties and Salmon River in Village of Pulaski	Flood, landslide	4-d, 4-e	Village of Pulaski Highway/DPW dept., NYSDEC	Village completed this action in 2013-2014. Total cost- \$1 million (Village received \$500,000 state capital fund grant).
Purchase new radios for 911 system – Town Richland and Village Pulaski	All hazards	5-c	Town of Richland Board and Village of Pulaski Board	Village completed this action.
Install security fencing around public water supply wells and water tank in Village Pulaski	Terrorism	4-c	Village of Pulaski Highway/DPW dept.	Village completed this action in 2018.

7.2 Proposed Mitigation Actions

The Village proposed four (4) new mitigation actions to be included in the HMP update. Two (2) of these actions are joint actions with the Town of Richland. These actions are described in Table 8, below and on worksheets included in Attachment A.

Table 8. 2018 Proposed Mitigation Actions Village of Pulaski									
Action ID	Mitigation Action	Hazard(s) Mitigated	Implementing Agencies (Lead* & Support)	Planning Mechanism	Timeframe	New or Existing Development	Estimated Cost	Funding Source(s)	Priority
Pulaski 1	Backup power for American Legion (potential emergency shelter location)	All	Village Mayor*	Comprehensive Emergency Management Plan	1-5 years	Existing	\$15,000	FEMA- PDM, USDA-RD- Community Facilities Grant, Local budget	1
Pulaski 2	Stream stabilization project- Spring Brook off of Maple Ave Ext.	Flood, Ice Jam	Village DPW Superintendent*; Oswego County SWCD	Comprehensive Plan	1-5 years	Existing	\$200,000	FEMA- PDM	2
Pulaski-Richland 3	Construct an easy on/off ramp to Interstate 81	Severe Storm, Severe Winter Storm, Ice Storm, Flood	Village DPW Superintendent*, Town Highway Dept.; NYSDOT	Comprehensive Plan	5 years	Existing	\$3 million	FEMA- PDM, NYSDOT- LAFAP	3
Pulaski-Richland 4	Purchase 2 virtual message boards for use along NY-3, NY-104, CR-28, and CR-41 during hazard conditions to alert residents of snow drifts, evacuation routes, flooding, etc.	All	Village DPW Superintendent*; Town Highway Dept.; NYSDOT	Village Capital Improvement Plan	1-5 years	Existing	\$30,000	FEMA- PDM, NYSDOT- CFA	4
Potential Funding Sources FEMA PDM: https://www.fema.gov/pre-disaster-mitigation-grant-program USDA-RD Community Facilities Grant: https://www.rd.usda.gov/programs-services/community-facilities-direct-loan-grant-program NYSDOT- LAFAP: https://www.dot.ny.gov/divisions/operating/opdm/local-programs-bureau/locally-administered-federal-aid-projects NYSDOT- CFA: https://www.dot.ny.gov/programs/consolidatedfundingapplication									

7.3 Cost-Benefit Analysis

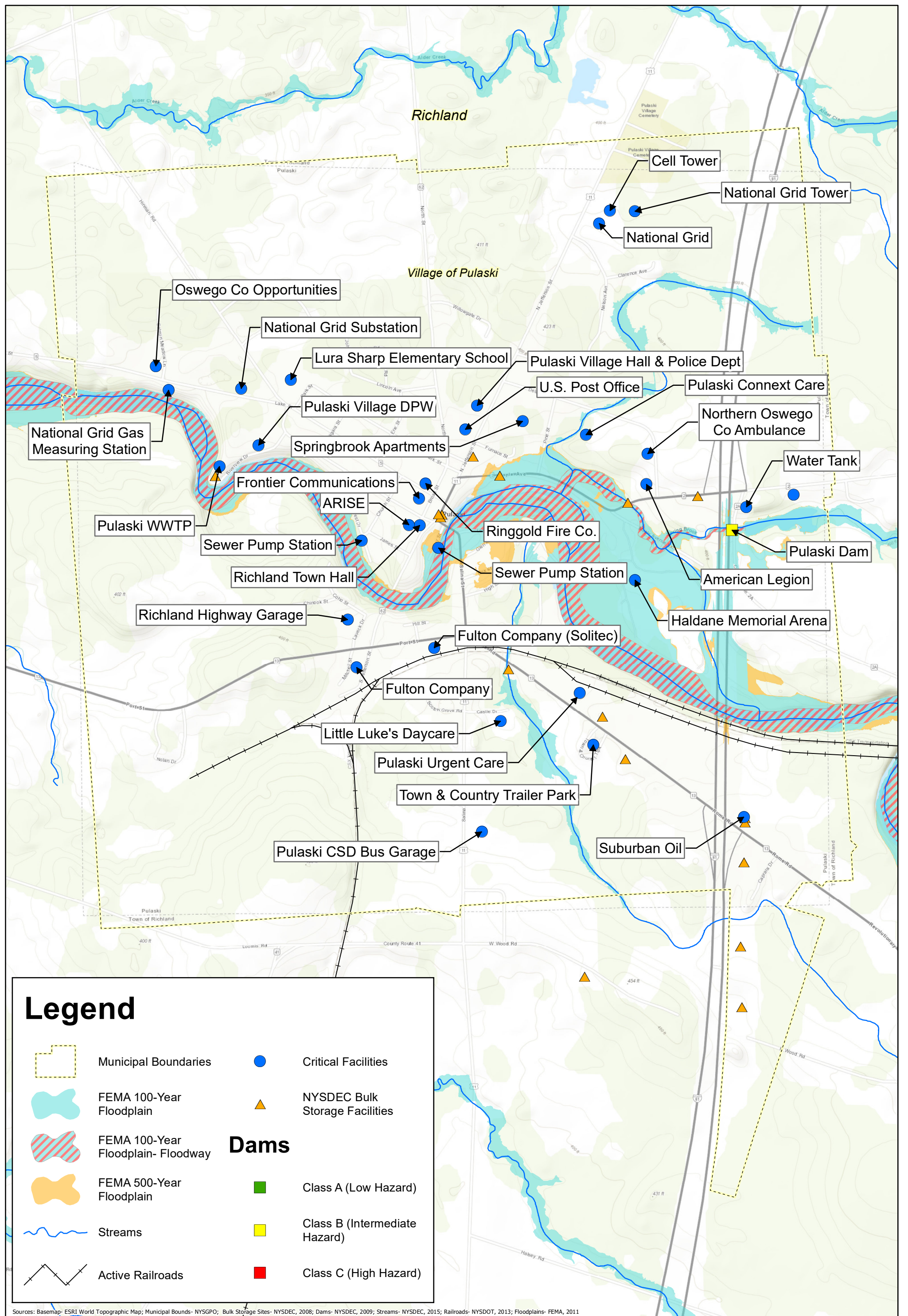
Each of the Village's proposed mitigation actions were evaluated and prioritized using the STAPLEE cost-benefit analysis. The Village's STAPLEE worksheet is provided in Attachment B. The STAPLEE analysis includes the following lenses of evaluation: social, technological, administrative, political, legal,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

8.0 Works Cited

Morrow, Mary Lou. 2016. "Village of Pulaski". *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. 118-121. 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 –
Village of Pulaski



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 –
Village of Pulaski**

Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Village of Pulaski
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Mitigation Action Worksheet

Project Name:	Backup power for American Legion (potential emergency shelter location)
Project Number:	Pulaski-1

Risk/Vulnerability

Hazard of Concern:	All
Description of the Problem:	Currently the American Legion does not have a backup generator. This building is a good emergency shelter location because there are utilities and a kitchen area available- backup power would ensure its function during an emergency.

Action of Project Intended for Implementation

Description of the Solution:	Install backup power at American Legion to increase sheltering capabilities within the Village
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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.)

Level of Protection:	Med	Estimated Benefits (losses avoided):	Increased sheltering abilities for the Village and Town residents
Useful Life:	Long term		
Estimated Cost:	\$15,000		

Plan for Implementation

Prioritization:	Med	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, Local
Responsible Organization:	Pulaski Village 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	No change in current conditions
	Install backup power at American Legion	\$15,000	Increases sheltering capabilities for 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:	Village of Pulaski
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Mitigation Action Worksheet

Project Name:	Stream stabilization project- Spring Brook off of Maple Ave Ext.
Project Number:	Pulaski-2

Risk/Vulnerability

Hazard of Concern:	Flood, Ice Jam
Description of the Problem:	Residential properties along Maple Ave Ext commonly have flooding issues, ice jam occurred in winter 2018 leading to significant flooding issues.

Action of Project Intended for Implementation

Description of the Solution:	Design and implement a stream stabilization project to prevent erosion and reduce flood flows/ velocities to reduce flooding along Spring Brook- including floodplain enhancement, vegetative buffers, etc.
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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:	High	Estimated Benefits (losses avoided):	Reduce flooding due to high water levels, ice jams
Useful Life:	Long term		
Estimated Cost:	\$200,000		

Plan for Implementation

Prioritization:	High	Desired Timeframe for Implementation:	1-5 years
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	FEMA- PDM
Responsible Organization:	Pulaski Village Board, Oswego Co SWCD	Local Planning Mechanisms to be used in Implementation, if any:	Village Capital Improvement Plan

Three Alternatives Considered (Including No Action)

	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change in current conditions- flood issues remain.
	Conduct feasibility study to determine best way to address flooding along Spring Brook	\$50,000	This is the first logical step to take but not a complete solution
	Conduct feasibility study and implement a stream stabilization project along Spring Brook	\$200,000	Will assess best way to address Spring Brook flooding issues and implement a stabilization project- complete solution.

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:	Village of Pulaski and Town of Richland
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Mitigation Action Worksheet

Project Name:	Construct and easy on/off ramp to Interstate 81
Project Number:	Pulaski/Richland 3
Risk/Vulnerability	
Hazard of Concern:	Severe Storm, Severe Winter Storm, Ice Storm, Flood
Description of the Problem:	Currently the on/off ramps to I-81N and I-81S are separated- ramps to I-81 N are off of CR-2, and ramps to I-81 S are off of NY-13.
Action of Project Intended for Implementation	
Description of the Solution:	Coordinate with NYSDOT to construct easy on/off ramps in the same location to access both I-81 N and S would improve access to this important emergency evacuation route within the Village and Town.

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:	High	Estimated Benefits (losses avoided):	Improve emergency evacuation route access for residents
Useful Life:	Long term		
Estimated Cost:	\$3 million		

Plan for Implementation

Prioritization:	High	Desired Timeframe for Implementation:	5 years
Estimated Time Required for Project Implementation:	2 years	Potential Funding Sources:	FEMA PDM, NYSDOT- LAFAP
Responsible Organization:	Pulaski Village DPW	Local Planning Mechanisms to be used in Implementation, if any:	Village Capital Improvement Plan

Three Alternatives Considered (Including No Action)

	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change to current situation. No improvement to emergency evacuation route access
	Install easy on/off ramps	\$3 million	Improved emergency evacuation route access and access to I-81 in general

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:	Village of Pulaski and Town of Richland
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Mitigation Action Worksheet

Project Name:	Purchase 2 variable message boards for use along NY-3, NY-104, CR 28, and CR 41 during hazard conditions to alert residents of snow drifts, evacuation routes, flooding, etc.
Project Number:	Pulaski/Richland 4

Risk/Vulnerability

Hazard of Concern:	All
Description of the Problem:	Currently lack emergency signage along main roadways within Town and Village. Heavy snow drifts, storms, etc. can create hazardous driving conditions.

Action of Project Intended for Implementation

Description of the Solution:	Purchase 2 variable message boards for use along main roadways during hazard events. Two would allow both directions of traffic to be notified. The boards are portable and could be used in different locations as needed to alert residents of hazardous travel conditions.
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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:	High	Estimated Benefits (losses avoided):	Better informed public before and during hazard events
Useful Life:	Long term		
Estimated Cost:	\$30,000 total		

Plan for Implementation

Prioritization:	High	Desired Timeframe for Implementation:	1-5 years
Estimated Time Required for Project Implementation:	6 months-1 year	Potential Funding Sources:	FEMA- PDM, NYSDOT- CFA
Responsible Organization:	Village DPW	Local Planning Mechanisms to be used in Implementation, if any:	Village Capital Improvement Plan

Three Alternatives Considered (Including No Action)

	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change- still lack emergency signage
	Purchase 1 variable message board	\$15,000	Only notifies people travelling in one direction
	Purchase 2 variable message boards	\$30,000	Notifies people travelling in both directions along a given roadway and maximizes communication of hazard conditions

Progress Report (for Plan Maintenance)

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

Attachment B

**STAPLEE Table –
Village of Pulaski**

STAPLEE Criteria Consideration Table
Mitigation Action Prioritization and Comparison

Jurisdiction Village of Pulaski

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			
Pulaski 1	Backup power for American Legion (potential emergency shelter location)	+	+	+	+	0	0	0	+	+	+	High	Low	High (#1)
Pulaski 2	Stream stabilization project- Spring Brook off of Maple Ave Ext.	+	0	-	+	+	-	+	-	+	0	High	High	Med (#2)
Pulaski 3*	Construct an easy on/off ramp to Interstate 81	+	-	+	+	+	-	0	-	+	-	High	High	Med (#3)
Pulaski 4*	Purchase 2 variable message boards for use along NY-3, NY-104, CR-28, and CR-41 during hazard conditions to alert residents of snow drifts, evacuation routes, flooding, etc.	+	+	+	+	0	-	0	+	+	+	High	Low	Med (#4)

*Shared action with Town of Richland