

# Jurisdictional Annex Village of Central Square

#### 1.0 Contacts

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

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## 2.0 Municipal Profile

#### **Population**

The 2016 American Community Survey estimated that 1,937 people live in the Village of Central Square. The Village's population has increased by 17.7% since the 2000 Census (1,646) (U.S. Census Bureau, 2016).

#### **Location**

The Village of Central Square is located in the southern part of the Town of Hastings, in southern Oswego County. The Village is bordered by the Town of West Monroe to the east. Interstate 81, U.S. Route 11, and State Route 49 provide direct access to the Village.

#### **Brief History**

The Village of Central Square was officially formed in 1890. The Village, just a few miles north of Oneida Lake, was originally the location of Native American trail crossroads from the surrounding area. The first plank road in the state, now U.S. Route 11, was completed in 1846 and ran from Syracuse to Central Square. The Village became a railroad junction when the NY & Oswego Midland Railroad (eventually renamed the New York Central Railroad) were built in 1869-1871, which spurred development. Agriculture, particularly dairy farming, and lumbering were the main industries in the Village (Stevens, 2016).

#### **Governing Body**

The Village of Central Square is governed by a five (5) member Village Board, led by the Mayor.

#### **Future Growth**

Since the last County HMP (2012), few new developments have been completed in the Village of Central Square. Generally, these projects included residential subdivisions outside of flood-prone areas. The Village has received some inquiries regarding commercial developments, but plans have not been finalized.

# 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		
Severe Winter Storm	3	1	3	2	High	1		
Severe Thunderstorm, Wind, Tornado	3	1	3	2	High	2		
Utility Failure	3	3	2	1	High	3		
HAZMAT Transit	1	3	2	1	Moderate	4		
Extreme Temps	3	1	1	2	Moderate	5		
Ice Storm	3	1	3	2	High	6		
Transportation Accident	1	3	2	2	Moderate	7		
Flood	1	2	2	2	Moderate	8		

Table 1: Hazard Vulnerability by Event							
Hazard Event	Extent	Onset	Impact (Damages and Injury)	Frequency	Vulnerability Rank	Jurisdiction Rank	
Drought	1	1	1	1	Low	9	
Coastal Storm	3	1	2	1	Moderate	10	
Tornado	2	2	1	1	Moderate	11	
Terrorism	1	3	2	1	Moderate	12	
Water Supply Contamination	3	3	2	1	High	13	
Wildfire	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 Central Square. The tables below denote the number and locations of critical facilities within the Village.

Table 2: Critical	Table 2: Critical Infrastructure in the Village of Central Square				
Facility Name	Address (Street, Town/Village/Hamlet)	Parcel Located in Floodplain	Structure Located in Floodplain		
	Transportation Network				
Evacuation Routes	-	-	-		
Bridges	-	-	-		
	Public Utilities				
Alltel NY Inc. NE Region property	off of S Main St				
National Grid property	off of S Main St				
Wastewater Treatment Plant	3125 East Ave, Central Square, NY 13036	100YR	No		
Windstream Communications property	off of S Main St				
	Municipal Services				
Village Municipal Offices	3125 East Ave, Central Square, NY 13036	100YR	No		
Er	mergency and Medical Services				
Central Square Fire Dept.	687 N Main St, Central Square, NY 13036	No	No		
Central Square Urgent Care	3045 East Ave, Central Square, NY 13036	No	No		
Southern Oswego Volunteer Ambulance Corps	Gertrude Drive, Central Square, NY 13036	No	No		
	Community Services				
U.S. Post Office	555 S Main St, Central Square, NY 13036				

Table 2: Critical Infrastructure in the Village of Central Square						
Address Parcel Structure  Address Located in Located in Facility Name (Street, Town/Village/Hamlet) Floodplain Floodplain						
Education	onal, Shelter and Evacuation Facilities					
Millard Hawk Primary School	74 School Dr, Central Square, NY 13036	100YR	No			
Paul V. Moore High School	44 School Dr, Central Square, NY 13036	100YR	No			

# 4.0 Priority Hazard Events

The following sections detail the priority hazard events identified by the jurisdiction. Additional information about each hazard including frequency, history, and severity within Oswego County is included within Section 5.0 of the main body of the Hazard Mitigation Plan (Volume I).

The probability of climate-related hazard events is expected to increase in the future within the Village of Central Square. Climate change is expected to cause an increase in weather volatility, rising sea level, and greater temperature extremes.

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 Central Square are described in detail below.

## 4.1.1 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 Central Square 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 Hastings 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 Central Square 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 Central Square.

There is no record of winter storm-related damage estimates explicitly for the Village of Central Square, 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. Severe winter storms generally cause property damage and can cause injuries and potential loss of life due to spinoff events, such as a transportation accident.

During severe winter storm events, portions of Interstate 81 may be closed. The Village of Central Square is located just west of Interstate 81 and has experienced significant traffic jams when traffic exits Interstate 81 during closures and travels along State Route 49. There is no way for traffic to bypass the center of the Village, and heavy traffic prevents plows from accessing the roadway, creating unsafe travel conditions. The Village is looking to complete a traffic study to assess options for a potential road extension that could provide safer evacuation conditions.

#### **Future Potential Impacts**

The Village of Central Square will continue to experience severe winter storm events in the future. These events occur multiple times per year and generally affect most or all of Oswego County.

#### 4.1.2 Severe Thunderstorm, Wind, or Tornado and Coastal Storm

For a description of Severe Thunderstorm, Wind, or Tornado, 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.

#### <u>Hazard Vulnerability</u>

The entire Village is susceptible to damages from a severe thunderstorm, wind, 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.

#### <u>Historical Hazard Occurrences and Damage Estimates</u>

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 Village of Central Square from 1995 to 2017 (frequency of about once to twice a year). Seven (7) of these records were thunderstorm winds, seven (7) were hail events, and one (1) was a tornado. Estimated damages ranged from \$2,000 to \$50,000 (Table 3). Actual damages were likely greater than those estimated by the NCDC.

Table 3: Severe Storm I	Event Records for	the Village of C	Central Square	
Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Tornado	5/26/1994	F0	\$50,000	-
Thunderstorm Wind	8/3/1995	-	\$5,000	-
Hail	7/25/1996	1.75 inches	\$2,000	-
Thunderstorm Wind	9/26/1998	-	\$10,000	-
Thunderstorm Wind	6/27/2002	50 kts	\$15,000	-
Thunderstorm Wind	6/6/2008	50 kts	\$15,000	-
Hail	7/17/2010	1 inch	\$5,000	\$5,000
Hail	5/22/2013	0.88 inches	-	-
Hail	5/22/2013	0.75 inches	-	-
Thunderstorm Wind	7/19/2013	50 kts	\$10,000	-
Thunderstorm Wind	8/18/2015	50 kts	\$15,000	-
Thunderstorm Wind	8/18/2015	50 kts	\$15,000	-
Hail	5/18/2017	1.5 inches	-	-
Hail	5/18/2017	1.75 inches	-	-
Hail	8/12/2017	0.88 inches	-	-
7	otal		\$142 ,000	\$5,000

#### **Future Potential Impacts**

Severe storms are a common event in the Village of Central Square and will continue to occur in the future. The frequency and magnitude of severe storm events may be increased due to climate change. Severe storms have the potential to cause significant property damage.

## 4.1.3 Extreme Temps

#### **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 Village of Central Square 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 Village was determined to have a moderate vulnerability to extreme temperature events due to their widespread nature and moderate frequency.

#### <u>Historical Hazard Occurrences and Damage Estimates</u>

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

#### 4.1.4 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 Central Square is highly vulnerable to damages from an ice storm event due to the hazard's widespread extent, high damage potential, and moderate frequency.

#### Historical Hazard Occurrences and Damage Estimates

The Village of Central Square 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 have been reported specifically for the Village of Central Square.

#### **Future Potential Impacts**

The Village of Central Square 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.

#### 4.1.5 Flood

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

#### **Hazard Vulnerability**

The Village is drained by Little Bay Creek and its tributaries, which drain to Oneida Lake. FEMA's Flood Insurance Mapping Program designates areas that are at risk for flooding. Low flood risk are areas unlikely to flood, moderate risk are areas within the 500-year floodplain (0.2% likely to flood in any given year), and high risk are areas that frequently flood, up to the 100-year flood risk zone (1% likely to flood in any given year). Table 4 summarizes the amount of land within the Village of Central Square 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)				
	Percent of Total Area			
Village of Central Square Total Area	100-Year Floodplain	500-Year Floodplain	Area of Minimal Flood Hazard	
1,224 acres	15.15%	0%	84.85%	

Table 5 below summarizes the value of properties in the Village of Central Square 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	10	\$3,513,200	0	-	
Community Services	2	\$21,694,000	0	-	
Industrial	0	-	0	-	
Residential	36	\$3,436,810	0	-	
Utility	3	\$243,543	0	-	
Other**	31	\$21,400	0	-	
Total	82	\$28,908,953	0	-	

<sup>\*</sup>Structure Value estimated by subtracting parcel's Land Assessed Value from Total Assessed Value (Oswego County Real Property Tax Office, 2018)

#### <u>Historical Hazard Occurrences and Damage Estimates</u>

According to NOAA's Storm Events Database, in the past ten (10) years, no flood records specifically impacted the Village of Central Square. The Village experiences areal flooding during heavy precipitation events, and several roadways (including US Route 11 and local roads near the High School) have repetitive flooding issues due to lack of suitable stormwater conveyance. The Village is seeking to address stormwater improvements as a mitigation action in this plan update.

#### **Future Potential Impacts**

Properties along Little Bay Creek, which flows through the eastern half of the Village, and its tributaries are vulnerable to flooding. Four (4) of the Village's critical facilities are located on parcels that intersect the mapped 100-year floodplain of Little Bay Creek, but the structures themselves are outside of a mapped floodplain (Table 2).

The Village's floodplain ordinance (Local Law No. 2 of 2013) indicates that no new critical facilities are to be constructed within a floodplain. The Village will continue to enforce local floodplain regulations in order to protect properties from damages as much as possible.

<sup>\*\*</sup>Includes parcels classified as vacant; recreational; and wild forest/conservation land/parks.

## 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 Village of Central Square is moderately susceptible to a drought due to the widespread extent and potential to cause moderate damages. Agricultural areas and private wells would experience the most significant impacts. The Village is served by a municipal water system which is supplied by the Onondaga County Water Authority (OCWA). In this part of the state, OCWA provides water sourced from Lake Ontario. Therefore, a drought is unlikely to impact potable water supply for the Village.

#### <u>Historical Hazard Occurrences and Damage Estimates</u>

There are no drought records specifically reported for the Village of Central Square. The Village was impacted by a drought in the late summer and fall of 2016, which affected the entire County.

#### **Future Potential Impacts**

The entire Village of Central Square 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.

#### 4.1.9 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 Village of Central Square is moderately vulnerable to a wildfire. While over half of the Village is developed, there are pockets of undeveloped forest and grassland areas that could be susceptible to wildfires, particularly in the eastern half and southern end of the Village. A wildfire event could impact a moderate amount of the Village and would come with little to no warning. The Village of Central Square experienced 1.4 to 3.4 wildfires per square mile between 2003 and 2017 (see Figure 5.9, Appendix A of the main body of the report).

#### Historical Hazard Occurrences and Damage Estimates

There are no historical records or damage estimates of wildfires within the Village of Central Square. Previous wildfire events in 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, individual jurisdictions or the County would likely incur significant costs associated with firefighting and other emergency response needs.

#### **Future Potential Impacts**

The Village of Central Square contains portions of undeveloped land 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.

# 4.2 Technological Hazards

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

#### 4.2.1 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 Central Square 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.

#### <u>Historical Hazard Occurrences and Damage Estimates</u>

The Village of Central Square 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.

# 4.2.2 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 Central Square contains two (2) major transportation routes (U.S. Route 11 and State Route 49) that are used for the transport of hazardous materials. U.S. Route 11 runs north to south in the western portion of the Village. State Route 49 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 Central Square. In addition, the CSX Railroad corridor runs north to south through the center 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.

#### <u>Historical Hazard Occurrences and Damage Estimates</u>

There is one (1) record of a HAZMAT in transit events in the Village of Central Square. On November 19, 2005, a CSX freight train derailed in the Village just north of Dry Bridge Road (near the U.S. Route 11 bridge over the railroad). Six of the derailed cars were carrying hazardous chemicals, including liquefied chlorine gas and sodium hydroxide.

#### **Future Potential Impacts**

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

## 4.2.3 <u>Transportation Accident</u>

#### **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 Central Square contains two major transportation routes (U.S. Route 11 and State Route 49). U.S. Route 11 runs north to south in the western portion of the Village, and State Route 49 runs east to west through the center 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 these routes has the potential to impact a portion of the Village of Central Square.

#### 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 Central Square (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.

#### 4.2.4 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 Village of Central Square is moderately vulnerable to a terrorist event due to the event's short onset (no warning) and moderate potential impact to Village infrastructure and residents.

#### Historical Hazard Occurrences and Damage Estimates

There are no records of terrorist events in the Village of Central Square or Oswego County. The Village 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 Village chose to analyze this hazard for the HMP update. However, terrorism remains a low risk for the Village of Central Square. The Village contains two (2) schools, Millard Hawk Elementary and Paul V. Moore High School. The Village also operates a public water supply system that could be the target of a terrorist attack.

# 4.2.5 <u>Water Supply Contamination</u>

#### **Hazard Vulnerability**

The Village of Central Square would be highly vulnerable to water supply contamination due to the large extent, fast onset, and moderate damage potential for this hazard. The entire village is served by a public water supply system. The risk of contamination is relatively low, as water is supplied from Lake Ontario via the Onondaga County Water Authority (OCWA) and not from localized groundwater wells that may be contaminated during flooding events. However, any contamination from the lake that is not treated properly would have the potential to reach the Village's water system. Water supply contamination could also result from terrorism.

#### <u>Historical Hazard Occurrences and Damage Estimates</u>

There are no historical records or damage estimates for water supply contamination in the Village of Central Square. However, if this event were to occur, it has the potential to cause a large number of injuries or loss of life.

# **Future Potential Impacts**

The Village is susceptible to a water supply contamination event, but the risk is relatively low.

# **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 Ca	pabilities
Planning Mechanism	Village of Central Square	Notes
	Plans	
Comprehensive/Land Use Plan	X	Adopted.
Post-disaster Recovery Plan	X	In place.
Comprehensive Emergency Management Plan	X	In place.
	Policies/Ordinances	
Building Codes	<ul> <li>2010 Residential Code of NYS</li> <li>2010 Fire Code of NYS</li> <li>2010 Building Code of NYS</li> <li>2010 Exiting Building Code of NYS</li> <li>2010 Energy Conservation Construction Code of NYS</li> <li>2010 Plumbing Code of NYS</li> <li>2010 Mechanical Code of NYS</li> <li>2010 Fuel Gas Code of NYS</li> </ul>	Village Code Enforcement Officer
Zoning or Land Use Codes	X	Local Law No. 1 of 1983 Last updated in 2007
Subdivision Regulations	X	Adopted.
Property Set-back Ordinance	X	Part of zoning.
Flood Regulations	X	Local Law No. 2 of 2013
Stormwater Ordinance	Х	Local Law No. 1 of 2009 The Village has a Municipal Separate Storm Sewer System (MS4).
Site Plan Review Requirements	X	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	Х	Dept. of Public Works responsible
Storm Drainage Maintenance Program	X	Dept. of Public Works responsible
Mutual Aid Agreements	X	Agreements with the Town of Hastings

Table 6. Planning Mechanisms and Capabilities					
Planning Mechanism	Village of Central Square	Notes			
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			
Local Floodplain Administrator	X	Code Enforcement Officer			
Public Information Official	X	Mayor			

# 5.2 Emergency Communications, Routes, and Shelters

The Village of Central Square, along with Oswego County, utilize the HyperReach emergency communications system. Major transportation routes within the Village include U.S. Route 11 and State Route 49. Interstate 81 is located just outside of the Village's eastern boundary. The Village of Central Square has one (1) established emergency shelter location, which is shared with the Town of Hastings:

Paul V. Moore High School- 44 School Dr, Central Square, NY 13036

The high school is ADA accessible. The Village currently does not have any pet sheltering accommodations in place.

# 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 Central Square based on the 2017 NYS Hazard Mitigation Planning Standards. The following locations were selected for residents in the Village of Central Square. It is noted that formal agreements would need to be established in order to use privately-owned properties.

#### • Potential Temporary Housing Locations

- o Goettel Park- 755 N Main St, Central Square, NY 13036
- o Crossroads Park- NY-49, Central Square, NY 13036
- P.V. Moore High School Athletic Fields- 44 School Dr, Central Square,
   NY 13036

#### • Potential Permanent Housing Locations

o Goettel Park- 755 N Main St, Central Square, NY 13036

- o Crossroads Park- NY-49, Central Square, NY 13036
- o Vacant Village property south of cemetery on U.S. Route 11

#### **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 Central Square currently participates in the NFIP. As of November 2017, the Village had three (3) flood insurance policies in-force with a total of \$478,700 in coverage. In addition, five (5) NFIP claims have been filed to date, two (2) of which were closed without payment. The remaining three (3) claims were closed with \$8,830.15 in payments. There are no repetitive loss properties in the Village of Central Square.

The Village's Code Enforcement Officer serves as the Local Floodplain Administrator, and flood maps are available for viewing and copying at the Hastings Town Hall (1134 US Route 11, Central Square, NY 13145). 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 #2 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 proposed seven (7) mitigation actions in the 2012 Oswego County HMP. The details and status of previous actions are summarized in Table 6. One of the 2012 mitigation actions proposed for the Village of Central Square was revised and re-included for the 2018 update. The Village's progress on the 2012 mitigation actions is described in Table 7.

Table 7. 2012 Hazard Mitigation Actions Village of Central Square					
Proposed Mitigation Action	Hazard(s) Mitigated	2012 Goals & Objectives Met	Implementing Agency	Status	
Review emergency evacuation signage within Village	Severe storm, ice storm, earthquake, tornado, flood, wildfire, winter storm, coastal storm, landslide, terrorism, hazmat (transit)	5-c, 5-e	Central Square municipal board and Highway/DPW	Oswego County implemented road signage in the Village for snow emergencies. The Village can close the ramp to Interstate 81 north in the event of an emergency.	
Review/implement County regulations and insurance regulations on floodplain management requirements	Flood	1-b, 3-a, 4-a, 4-b, 4-d	Central Square Floodplain Administrator	The Village of Central Square does not experience significant natural flooding issues. This action was not progressed.	
Enforce/promote smart development that minimizes impacts from natural hazards	Flood	1-b, 3-a, 4-a, 4-b, 4-d	Central Square Zoning/Code Enforcement Official	The Village continues to adhere to State requirements for development. The Village maintains a municipal separate storm sewer system (MS4).	
Implement/revise review board regulations and building/zoning codes for potential hazard mitigation updates	Severe storm, ice storm, fire, earthquake, tornado, flood, winter storm, utility failure	1-a, 3-a, 4-a	Central Square Zoning/Code Enforcement Official	The Village updated building and zoning codes recently. The Village recently passed a new local law prohibiting sump pumps from entering the sanitary sewage system.	
Implement local Land Use Plans to reduce flood impacts (reduce development and promote safe development)	Flood	1-a	Central Square Planning and Code Enforcement	The Village's comprehensive plan is continually implemented as new development is proposed.	

Table 7. 2012 Hazard Mitigation Actions Village of Central Square					
Proposed Mitigation Action Hazard(s) Mitigated Objectives Met Agency Status					
Assist County with the development and implementation of new public awareness/ education programs for hazard mitigation and preparedness	All hazards	1-b	Central Square public information official	Re-included in this plan update (property resiliency brochure action).	
Attend County zoning training programs focused on hazard mitigation	Severe storm, ice storm, fire, earthquake, tornado, flood, winter storm, utility failure	1-a	Central Square zoning/code enforcement official	This is an ongoing action. The Village zoning board members are required to attend annual training.	

# 7.2 Proposed Mitigation Actions

The Village proposed four (4) new mitigation actions to be included in the HMP update. These actions are described in Table 8, below and on worksheets included in Attachment A.

	Table 8. 2018 Proposed Mitigation Actions  Village of Central Square								
Action ID	Mitigation Action	Hazard(s) Mitigated	Implementing Agencies (Lead* & Support)	Planning Mechanism	Timeframe	New or Existing Development	Estimated Cost	Funding Source(s)	Priority
Central Square 1	Develop and distribute property resilience brochure to all Village residents	Severe Thunderstorm/ Wind/ Tornado, Flooding, Severe Winter Storm, Ice Storm	Village Mayor*, Oswego County EMO	Comprehensive Plan	6-12 months	Existing	\$500-2,000	Village Budget	Med (#1)
Central Square 2	US-11 Corridor Improvements	Flood, Severe Winter Storm	Village DPW Superintendent*, NYSDOT	Comprehensive Plan	1 year	Existing	\$35,000	FEMA- PDM	Med (#2)
Central Square 3	Provide backup power for the Village Hall	Severe Storm, Severe Winter Storm, Ice Storm	Village Mayor*, Village DPW Superintendent	Comprehensive Plan	1 year	Existing	1 year	FEMA- PDM; USDA-RD- Community Facilities Grant	Med (#3)
Central Square 4	Update Village Traffic Study	Severe Winter Storm	Village DPW Superintendent	Comprehensive Plan	3 year	Existing	\$3 million	FEMA- PDM; NYSDOT- CHIPS	Low (#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 CHIPS: http://www.dot.ny.gov/programs/chips

# 7.3 Cost-Benefit Analysis

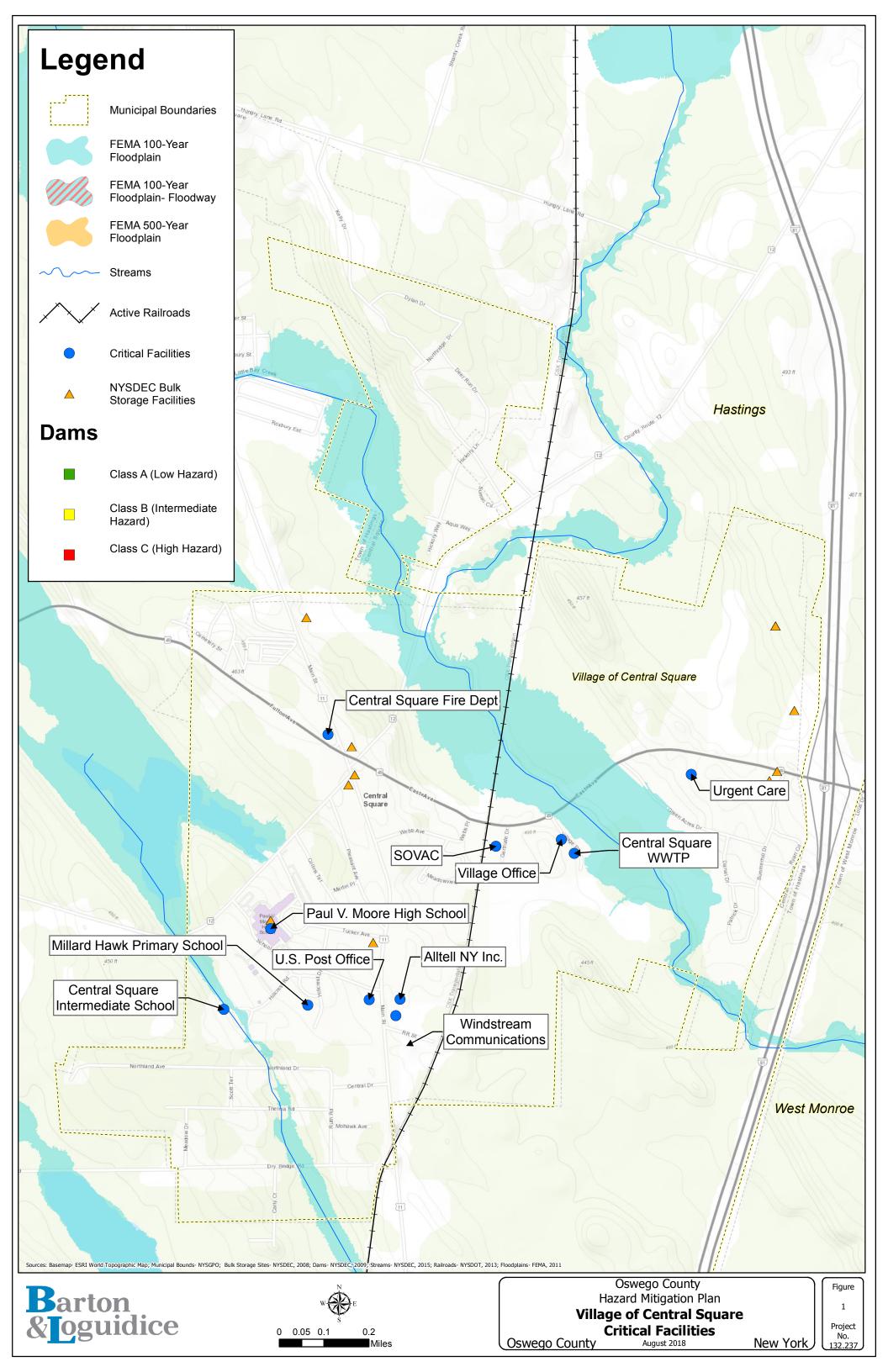
Each of the Village's proposed mitigation actions were evaluated and prioritized using the STAPLEE cost-benefit analysis. The Village's STAPLEE worksheet is provided in Attachment B. The STAPLEE analysis includes the following lenses of evaluation: social, technological, administrative, political, legal,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

#### 8.0 Works Cited

- Stevens, Heather. 2016. "Village of Central Square". *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. 70-72. 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 Central Square



# **Attachment A**

Mitigation Action Worksheets – Village of Central Square

Name of Jurisd	iction:		Village of Central Square											
			Mitigat	ion A	Action Work	she	eet							
Project Name:		Develop and distribute prop					S							
Project Number:			Central Square 1											
			<u> </u>	lisk/\	/ulnerability	,								
					d/Tornado, Flooding, Severe Winter Storm, Ice Storm									
Description of the Problem:			Many residents throughout Oswego County, including the Village of Central Square, may lack knowledge regarding how to make their properties more resilient to flooding and storm events. Storm damages could be minimized or avoided if residents had access to practical methods for hardening their properties.											
			Action of Projec	ct Int	ended for In	npl	ementation							
Description of the	n:	contact information, and otl	Modify County-wide property resiliency brochure to include additional information regarding Village codes, contact information, and other Village-specific information. Distribute the brochure to each Village resident, either by mailing or making the document available on the Village website and at the Village Hall.											
Is this project rela					No X			high accoming managers						
			protect to the 500-year flood											
Level of Protection			Estimated Benefits (losses avoided):			Village residents would be better informed about to protect their properties during flooding and sto								
Useful Life: Estimated Cost:		ong-te 500-2		,			events, which would help to lessen property damages in the future.							
			Plan	for I	mplementat	ior	ı							
Prioritization:		Medium		Desired Time Implementation			6 months to 1 year							
Estimated Time F Project Implemer		for	3 months		Potential Fur	ndir	ng Sources:	Village budget						
Responsible Orga		1:	Mayor	Local Planning Mechanisms to be used in Implementation, if any:				Comprehensive Plan						
			Three Alternatives	Cor	sidered (Inc	:luc	ding No Action)							
			Action	Estimated Cost			Evaluation							
Alternatives:	No Act	ion		\$0			No change in public awareness regarding property resilience.							
			operty resiliency brochure y Oswego County	\$500-2,000		Partial solution. The property resiliency techniques likely would be the same as those identified for the County, but this option lacks Village-specific information.								
resiliency bro			swego County property ochure modified with ifficing information	\$500-2,000		Most comprehensive approach, gives Village residents more complete information regarding Village-specific codes and contacts.								

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

Name of Jurisd	liction:	:	Village of Central Square										
			Mitiga	tion A	Action Worksh	eet							
Project Name:			US-11 Corridor Improvements										
Project Number:			Central Square 2										
			I	Risk/\	/ulnerability								
Hazard of Concerr	า:		Flood, Severe Winter Stor	m	_								
Description of the	Problen	m:	US-11 south (toward the railroad tracks) and several adjacent properties experience flooding and erosion issues during heavy precipitation events. In addition, the US-11 corridor lacks pedestrian safety, especially during the winter. Sidewalks are not consistent throughout corridor.										
	Action of Project Intended for Implementation												
Description of the	Solution	n:	Work with the NYSDOT to install a closed stormwater drainage system along US-11 (entire corridor within Village limits) to ameliorate flooding issues and improve sidewalks with vegetative buffers to increase pedestrian safety.										
Is this project related to a Critical Facility? Yes NoX  (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	n: Lo	OW			ated Benefits		pacts of roadway and adjacent						
Useful Life:	Lo	ong-tei	rm	(losse	es avoided):	properties during heavy precipitation events. Maintain safer pedestrian access throughout the main corridor of							
Estimated Cost: \$3 million			n			Village.							
			Plar	n for I	mplementatio	n							
Prioritization:			Med (#1)		Desired Timefra Implementation		1-5 years						
Estimated Time Ro Project Implement		for	1 year		Potential Fundi	ng Sources:	FEMA- PDM; NYSDOT- CHIPS						
Responsible Orga	nization	n:	Village DPW Supervisor		Local Planning used in Implem	Mechanisms to be entation, if any:	Comprehensive Plan						
			Three Alternatives	s Con	sidered (Includ	ding No Action)							
			Action	Es	timated Cost		Evaluation						
Alternatives:			No Action		\$0	Pedestrian danger a	nd flooding issues remain.						
	Sto	ormwa	ter improvements only	\$1 million		Flooding issues mitigated but pedestrian access stillimited and unsafe.							
			water and sidewalk mprovements		\$3 million	Flooding issues and pedestrian access are both improved.							
			Progress R	eport	(for Plan Main	itenance)							
Date of Status Re	port:												
Report of Progres	is:												
Update Evaluation of the Problem and/or Solution:													

Name of Jurisdiction:		Village	Village of Central Square										
			Mitigat	ion A	Action Works	sheet							
Project Name:		Provide	Provide backup power for the Village Hall										
Project Number:		Central Square 3											
•		_	•	Risk/\	/ulnerability								
Hazard of Concern	า:	Severe	Storm, Severe Wi	Vinter Storm, Ice Storm									
Description of the	The Vill	The Village Hall currently lacks a source of backup power. The Village Hall is a potential emergency shelter location and an alternate emergency operations center (the Village and the Town of Hastings' joint EOC is the Town Hall).											
Action of Project Intended for Implementation													
Description of the	Solution:	Install g		e Hall to	•		vide additional shelter for Village						
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.)							hichever is greater.)						
Level of Protectio	n: Med	um			nated Benefits		f critical operations and emergency						
Useful Life:	Long	term	rm		es avoided):	shelter availability during a power outage.							
Estimated Cost:	\$35,	000											
			Pla	n for I	mplementatio	n							
Prioritization:		Medium	(#3)		Desired Timefront		1 year						
Estimated Time R Project Implemen		1 year			Potential Fund	ing Sources:	FEMA- PDM; USDA-RD- Community Facilities Grant						
Responsible Orga	nization:	Mayor				Mechanisms to be nentation, if any:	Comprehensive Plan						
		Thr	ee Alternative	s Con	sidered (Inclu	ding No Action)							
		Action	1	Es	timated Cost	Evaluation							
Alternatives:	No Action			\$0		Village Hall has potential to lose power during a hazard event.							
			rtable generator to be een multiple Village		00	One facility still potentially unable to continue operation during power outage.							
Install permanent genera Village Hall.			erator at the	\$35,0	000	Maximum protection for continuity of critical operations.							
			Prograss D	enort	(for Plan Mair	ntenance)							
Date of Status Re	nort:		i rogicss N	υρυπ	TOT THAT INIAL	nonance)							
Report of Progres													
Update Evaluation													

Problem and/or Solution:

Name of Juriso	liction:	Village of C	Village of Central Square										
			Miti	gation Action W	orkshe	et							
Project Name:		Update Villag											
Project Number:			Central Square 4										
				Risk/Vulnerab	ility								
Hazard of Concern	า:	Severe Winte	r Storm										
Description of the	Problem:	Currently, during severe winter storm/heavy snow events, traffic becomes very congested within the Village along NY-49 and side streets when Interstate 81 is closed, especially during rush hours. This often prevents snow plow access throughout the Village.											
		Actio	Action of Project Intended for Implementation										
Description of the	Solution:	extension (or	Update the Village's existing Traffic Study to develop some alternative solutions. Ideally, a bypass road extension (or multiple) could eventually be installed to alleviate traffic jams by providing bypass routes for incoming traffic so people don't go through the center of the Village.										
Is this project related to a Critical Facility? Yes NoX  (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 Protectio	n: Low			Estimated Bene		Allows Village to review best options for increasing							
Useful Life:	Short-t	erm (for the plan	itself)	(losses avoided	d):	traffic continuity during hazard events.							
Estimated Cost:	\$35,00	0											
			D	lan for Impleme	ntation								
Prioritization:		Low (#2)	1	d Timeframe for	itation	2 years							
T HOTHIZATION.		LOW (#Z)		nentation:		2 yours							
Estimated Time R Project Implemen		1 year	Potent	ial Funding Sources	S:	FEMA- PDM							
Responsible Orga	nization:	Village DPW Supervisor		Planning Mechanisn Inplementation, if		Comprehensive Plan, Syracuse Metropolitan Transportation Council- TIP							
		Three Al	ternativ	es Considered	(Includi	ing No Action)							
		Action		Estimated Cost		Evaluation							
Alternatives:		No Action		\$0	Traffic	problems persist during hazard events.							
	Condu	ıct new traffic stu	dy	\$35,000	Analyze options for potential bypass roads around Village to provide safer evacuation routes.								
	Construct 6	emergency bypas	s route	\$4 million		the ultimate goal but cannot be completed without a tudy to analyze alternatives.							
		Pi	rogress	Report (for Plan	n Maint	enance)							
Date of Status Re													
Report of Progres													
Update Evaluation Problem and/or S													

# **Attachment B**

# STAPLEE Table – Village of Central Square

Worksheet #6

## STAPLEE Criteria Consideration Table Mitigation Action Prioritization and Comparison

Jurisdiction Village of Central Square

Action	S	Т	A +	P = Be	L nefit	E (favo	E orabl	Can action be easily implemented? e), - = Cost (unfavo	Does action achieve multiple plan objectives? rable), 0 = Neutral o	Can action be quickly implemented? or N/A	benefits	overall costs	ranking
Develop and distribute property resilience brochure to all Village residents	+	+	+	+	+	+	0	+	+	+	Low	Low	Med #1
US-11 Corridor Improvements	+	+	+	+	0	+	+	-	+	-	High	High	Med #2
Provide backup power for the Village Hall	+	+	+	+	+	0	0	+	+	+	Med	Med	Med #3
Update Village Traffic Study	+	+	+	+	0	+	+	-	+	-	High	High	Low #4
	Develop and distribute property resilience brochure to all Village residents  US-11 Corridor Improvements  Provide backup power for the Village Hall	Develop and distribute property resilience brochure to all Village residents +  US-11 Corridor Improvements +  Provide backup power for the Village Hall +	Develop and distribute property resilience brochure to all Village residents + +  US-11 Corridor Improvements + +  Provide backup power for the Village Hall + +	Develop and distribute property resilience brochure to all Village residents + + + +  US-11 Corridor Improvements + + + +  Provide backup power for the Village Hall + + + +	S   T   A   P     + = Be	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	S   T   A   P   L   E	S   T   A   P   L   E   E	Action  S T A P L E E E implemented?  + + + + + + + 0 + + 0  Provide backup power for the Village Hall  Action  S T A P L E E E implemented?  + + + + + + + 0 + + 0  + + + + + + 0 + + -	Action  S T A P L E E E implemented? plan objectives?  + = Benefit (favorable), - = Cost (unfavorable), 0 = Neutral of the brochure to all Village residents  + + + + + + + 0 + - + + - + + + + + + +	Action  S T A P L E E I easily implemented? plan objectives? implemented?	Action  S T A P L E E implemented? plan objectives? implemented? plan objectives? implemented? benefits  + + + + + + + + + + + + + + + + + + +	Action  S T A P L E E implemented? plan objectives? implemented? Level of action benefits overall costs  T + T P P P P P P P P P P P P P P P P P