

Town of Sandy Creek

Jurisdictional Annex Town of Sandy Creek

1.0 Contacts

The contacts for the Town of Sandy Creek regarding this plan were identified as follows:

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2.0 Municipal Profile

Population

The 2016 American Community Survey estimated that 3,846 people live in the Town of Sandy Creek. The Town's population has decreased since the 2000 Census population (3,863) by 0.40% (U.S. Census Bureau, 2016).

Location

The Town of Sandy Creek is located in the northwestern corner of Oswego County, bordered by Lake Ontario to the west, the Town of Boylston to the east, and the Town of Richland to the South. Interstate 81 provides direct access to the Town.

Brief History

Land comprising the Town of Sandy Creek was originally occupied by the Iroquois, primarily during the summer and fall for hunting and fishing purposes. The Town was first occupied by European settlers in 1803. Many local residents participated in the War of 1812 or manufactured goods to support the war effort, as the Town was strategically located along Lake Ontario and between Oswego and Sackets Harbor. Early on, the area was primarily farmed and a wool fulling and carding mill and tannery began operation the 1820s. The tannery was destroyed by a fire in 1883 and was replaced by the Sandy Creek Wood Manufacturing Company, Ltd. In 1884. The Plank Road (now U.S. 11) was constructed through the center of the Town and Village of Sandy Creek which promoted settlement and development in the area (Cole, 2016).

Governing Body

The Town of Sandy Creek is governed by a five (5) member Town Council, led by the Town Supervisor.

Future Growth

The Town of Sandy Creek is seeking stable growth. The Town of Sandy Creek has had no new commercial or residential developments since the 2012 County HMP.

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

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

Table 1: Hazard Vulnerability by Event						
Hazard Event	Extent	Onset	Impact (Damages and Injury)	Frequency	Vulnerability Rank	Jurisdiction Rank
Ice Storm	3	1	3	2	High	1
Flood	2	2	3	3	High	2
HAZMAT Transit	1	3	2	1	Moderate	3
Water Supply Contamination	2	3	2	1	Moderate	4
Terrorism	1	3	2	1	Moderate	5
Severe Thunderstorm, Wind, or Tornado	3	1	3	3	High	6
Severe Winter Storm	3	1	2	3	High	7
HAZMAT Fixed	1	3	2	1	Moderate	8
Ice Jam	2	2	2	3	High	9

3.2. Critical Facilities

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

Table 2: Critical Facilities in the Town of Sandy Creek			
Facility Name	Address (Street, Town/Town/Hamlet)	Parcel Located in Floodplain	Structure Located in Floodplain
Transportation Network			
Evacuation Routes	-	-	-
Bridges	-	-	-
Public Utilities			
Cell Tower	off of Nellis Drive	No	No
Cell Tower	off of NY-3	No	No
Cell Tower	off of Sawmill Rd	No	No
Cell Tower	off of US-11	No	No
Frontier Phone Station	off of Rainbow Shores Rd	No	No
National Grid property	2240 CR 15, Pulaski NY 13142	No	No
Radio Tower	off of CR 62	No	No
Water Metering Station #1	-	No	No
Water Storage Facility	off of Lake St	No	No
Water Tank	off of Weaver Rd	No	No

Table 2: Critical Facilities in the Town of Sandy Creek

Facility Name	Address (Street, Town/Town/Hamlet)	Parcel Located in Floodplain	Structure Located in Floodplain
Water Treatment Facility	off of Rainbow Shores Rd	No	No
Water Vault #1	off of Carr Dr	No	No
Community Services			
Sandy Island Beach State Park	3387 CR 15, Pulaski, NY 13142	100YR, 500YR	100YR, 500YR
Dams			
Dam 080-0079	off of US-11	-	-
Dam 080-0097	off of CR 22	-	-
J Bulger Pond Dam	off of CR 62	-	-
WA Barlow Dam	off of US-11	-	-

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 generally expected to increase in the future within the Town of Sandy Creek. 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 Town of Sandy Creek are described in detail below.

4.1.1 Ice Storm

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

Hazard Vulnerability

Historically, ice storms have occurred about once every seven (7) years in Oswego County. These storms typically affect most or all of the County. The entire Town of Sandy Creek is moderately susceptible to damages from an ice storm event due to its large extent and moderate damage potential and frequency.

Historical Hazard Occurrences and Damage Estimates

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

Future Potential Impacts

The Town of Sandy Creek will continue to experience ice storm events in the future, as will the rest of Oswego County. The Town of Sandy Creek Highway Dept. completes tree maintenance within Town and Town roadways to minimize potential damages to overhead utility lines, which is common during ice storms. Private utility right of ways are generally maintained by the individual utility companies.

4.1.2 Flood

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

Hazard Vulnerability

The Town is drained by Little Sandy Creek, Blind Creek, Mud Creek, and many other tributaries to Lake Ontario. Lake Ontario borders the Town to the west. FEMA's Flood Insurance Mapping Program designates areas that are at risk for flooding. Low flood risk are areas unlikely to flood, moderate risk are areas within the 500-year floodplain (0.2% likely to flood in any given year), and high risk are areas that frequently flood, up to the 100-year flood risk zone (1% likely to flood in any given year). Table 3 summarizes the amount of land within the Town of Sandy Creek 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 2013)			
Town of Sandy Creek Total Area	Percent of Total Area		
	100-Year Floodplain	500-Year Floodplain	Area of Minimal Flood Hazard
28,124 acres	12.98%	0.19%	86.79%

Table 4 below summarizes the value of properties in the Town of Sandy Creek 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	10	\$58,400	2	\$0
Commercial	8	\$3,011,600	6	\$2,809,600
Community Services	0	-	0	-
Industrial	0	-	0	-
Residential	686	\$62,447,849	594	\$55,860,849
Utility	0	-	1	\$4,000
Other**	198	\$2,253,200	130	\$1,813,300
Total	902	\$67,771,049	733	\$60,487,749
*Structure Value estimated by subtracting parcel's Land Assessed Value from Total Assessed Value (Oswego County Real Property Tax Office, 2018)				
**Includes parcels classified as vacant; recreational; and wild forest/conservation land/parks.				

Historical Hazard Occurrences and Damage Estimates

According to NOAA's Storm Events Database, in the past fifteen (15) years, one (1) flood record was noted to specifically impact the Town of Sandy Creek. This record was a flood that occurred on September 30, 2010, impacting multiple jurisdictions in Oswego County. This event involved localized flooding caused by heavy precipitation that occurred the day before (3.2 inches fell overnight). Several roads were closed in the Town, and the NCDC estimated total damages for this event in the Town of Sandy Creek to be \$8,000.

The Town along with other municipalities along Lake Ontario were significantly impacted by lakeshore flooding due to high water levels on Lake Ontario in spring and summer 2017. Lake Ontario reached a record level of 248.95 feet. Flooding began in early May and continued until early fall. Hundreds of homes and businesses throughout the County (including

marinas, campgrounds, and private residences) sustained millions of dollars in damages. The 2017 lakeshore flooding was declared as a Presidential Disaster. Total damage in the county is estimated at \$23 million. The Town was also impacted by areal flooding in late October 2017, which led the Town Supervisor to declare a local state of emergency. Multiple roadways were closed due to flooding, including: Tryon Road, Hinman Road, Weaver Road, Hadley Road, Norton Road, Edwards Road, Kiblin Shores Road, and Kehoe Road. The following roads in the Town of Sandy Creek were not closed but compromised: Center Road, Snyder Road, Bremm Road, Button Road, Cummins Road, Fraser Road, Carr Road, Hilton Road, Rainbow Shores Road, Waful Tract, South Ave., Sand Road, Skinner Road, Paye Road, and Henderson Road. The Town has also been impacted by numerous county-wide events described in Section 5.1.2 of the main body of the Plan.

As described in Section 6.0 of this annex, eleven (11) NFIP loss claims were paid as of July 2018 in the Town of Sandy Creek totaling \$137,638.72 in payments. There are no repetitive loss properties in the Town of Sandy Creek.

Future Potential Impacts

Properties along Lake Ontario and its tributaries are vulnerable to flooding. Approximately 13% of the Town of Sandy Creek is within a mapped 100-year floodplain. One of the Town's critical facilities, Sandy Island Beach State Park, intersects the 100-year and 500-year floodplain (Table 2).

4.1.3 Severe Thunderstorm, Wind, or Tornado

For a description of these hazards, please see Section 5.1.1 of the main body of the Plan.

Hazard Vulnerability

The entire Town is moderately susceptible to damages from a severe thunderstorm, wind, or tornado or coastal storm event due to its moderate extent, hours of warning, and high frequency. 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 four (4) records for the Town of Sandy Creek between 2007 and 2017. Three (3) of these events were severe thunderstorm winds and one (1) was a hail event. Estimated property damages for the Town of Sandy Creek ranged from \$10,000 to \$100,000 (Table 5). Actual damages were likely greater than those estimated by the NCDC. The June 10, 2008 thunderstorm

wind event also included hail up to $\frac{3}{4}$ inches in diameter, and the greatest damages were experienced around Sandy Pond and the Town of Sandy Creek declared a local state of emergency.

Table 5: Severe Storm Event Records for the Town of Sandy Creek				
Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Thunderstorm Wind	6/19/2007	50 kts	\$12,000	-
Thunderstorm Wind	6/10/2008	58 kts	\$100,000	-
Thunderstorm Wind	7/31/2012	50 kts	\$10,000	-
Hail	5/30/2017	0.75 inches	-	-
Total			\$122,000	-

Future Potential Impacts

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

4.1.4 Severe Winter Storm

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

Hazard Vulnerability

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

Historical Hazard Occurrences and Damage Estimates

The Town of Sandy Creek has been affected by a number of county-wide severe winter storm events, described in Section 5.1.4 of the main body of the Plan. Severe winter storms typically occur several times annually in Oswego County. These storms typically affect most or all of the County. The NCDC does not report any winter storm records or damage estimates specific to the Town of Sandy Creek. The Town of Sandy Creek is located on the Tug Hill Plateau which receives 300 or more inches of snow each year.

Future Potential Impacts

The Town of Sandy Creek 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 Ice Jam

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

Hazard Vulnerability

In the Town of Sandy Creek, an ice jam could occur along Little Sandy Creek, Blind Creek, Mud Creek, and other major tributaries to Lake Ontario, along with North Sandy Pond and South Sandy Pond and Lake Ontario (Figure 1). Areas that may incur damages due to an ice jam generally include properties within a 100-year or 500-year floodplain, as shown in Table 4 in Section 4.1.3. In the Town of Sandy Creek, these areas primarily consist of residential properties and vacant land.

Historical Hazard Occurrences and Damage Estimates

An ice jam occurred in the Town of Sandy Creek between Lake Ontario and North Sandy Pond on January 14, 2014, causing high water levels on North Sandy Pond. This impacted many properties west of State Route 3 within the Town. Many properties and roadways were impacted by flooding related to the ice jam.

Future Potential Impacts

Major tributaries to Lake Ontario will continue to pose risks of ice jams in the Town of Sandy Creek. In the future, ice jams may occur more frequently due to climate change.

4.2 Technological Hazards

Technological hazards selected to be profiled for the Town of Sandy Creek are described in detail below.

4.2.1 HAZMAT in Transit

Hazard Vulnerability

Hazardous Materials (HAZMAT) in Transit events involve the uncontrollable release of flammable, toxic, corrosive, chemically instable, or combustible materials during transport that can damage infrastructure, pollute the environment, and/or cause injuries or death. The Town of Sandy Creek contains several main roadways, Interstate 81, U.S. Route 11, State Route 3, and County Route 15. Interstate 81 and U.S. 11 run north to south through the eastern half of the Town. State Route 3 runs north to south in the western half of the Town. County Route 15 runs east to west through the center of the Town. A transportation accident involving hazardous materials on any of these roadways has the potential to impact a portion of the Town of Sandy Creek. The CSX railroad (freight-only) runs north to south through the eastern half of the Town, intersecting the Village of Lacona.

Historical Hazard Occurrences and Damage Estimates

There are no specific records of HAZMAT in transit events in the Town of Sandy Creek. This hazard has been documented in other portions of the County (see main body of this plan update for details). However, the Town of Sandy Creek elected to include this hazard due to the moderate risk posed by major roadways that run directly through the Town.

Future Potential Impacts

Although HAZMAT in transit events are infrequent, the Town remains susceptible to future HAZMAT incidents along state 81, U.S. Route 11, State Route 3, and County Route 15, or a train derailment along the CSX railroad.

4.2.2 Water Supply Contamination

Hazard Vulnerability

The Town of Sandy Creek would be highly vulnerable to water supply contamination due to the wide extent, fast onset, and moderate damage or injury potential for this hazard. Much of the western portion of the Town is supplied by a public water system, which is sourced from groundwater wells. The Town is currently pursuing a water system expansion project which will bring municipal water service to a larger portion of the Town. While unlikely, contamination

could be caused due to improper treatment or localized groundwater contamination. Water supply contamination could also result from terrorism.

Historical Hazard Occurrences and Damage Estimates

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

Future Potential Impacts

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

4.2.3 Terrorism

Hazard Vulnerability

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

Historical Hazard Occurrences and Damage Estimates

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

Future Potential Impacts

With the recent rise in localized terrorism events throughout the country such as shootings in schools and public places, the Town chose to analyze this hazard for the HMP update. However, terrorism remains a low risk for the Town of Sandy Creek. The Town is mostly rural and does not have any public schools (they are located in the Village). The Town does have a public water system that could be impacted.

4.2.4 HAZMAT Fixed Site

Hazard Vulnerability

A fixed-site hazardous materials incident could occur at sites that store petroleum products or other chemicals for industrial or commercial use. The NYSDEC lists five petroleum bulk storage sites in the Town of Sandy Creek (Figure 1). These sites include a gas station,

marinas, and campgrounds. If a large petroleum spill were to occur at any of these locations, nearby properties may need to be evacuated to prevent human exposure and facilitate cleanup.

Historical Hazard Occurrences and Damage Estimates

There are no available records for HAZMAT fixed site incidents specifically in the Town of Sandy Creek. The Town elected to profile this hazard due to the presence of hazardous material storage facilities that store or use hazardous materials.

Future Potential Impacts

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

5.0 Capability Assessment

5.1 Planning and Regulatory Capability

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

Table 6. Planning Mechanisms and Capabilities		
Planning Mechanism	Town of Boylston	Notes
Plans		
Comprehensive Plan	X	Adopted. Joint Comprehensive Plan with Village of Sandy Creek and Village of Lacona updated in 2013
Post-Disaster Recovery Plan	X	In place.
Comprehensive Emergency Management Plan	X	In place.
Policies/Ordinances		
Building Codes	<ul style="list-style-type: none"> • 2010 Residential Code of NYS • 2010 Fire Code of NYS • 2010 Building Code of NYS • 2010 Existing Building Code of NYS • 2010 Energy Conservation Construction Code of NYS • 2010 Plumbing Code of NYS • 2010 Mechanical Code of NYS • 2010 Fuel Gas Code of NYS 	Town Code Enforcement Officer
Flood Regulations	X	Adopted.
Property Set-back Ordinance	X	In place.
Site Plan Review Requirements	X	In place.
Real Estate Disclosure Requirement	X	In place.

Table 6. Planning Mechanisms and Capabilities		
Planning Mechanism	Town of Boylston	Notes
Programs		
NFIP Participant	X	Current participant.
Public Education/Awareness Program	X	Fire Dept. responsible
Stream Maintenance Program	X	Town of Sandy Creek Highway Dept. Responsible
Storm Maintenance Program	X	Town of Sandy Creek Highway Dept. Responsible
Mutual Aid Agreements	X	Agreements with neighboring jurisdictions and Oswego County
Studies/Reports		
Hazard Analysis/Risk Assessment	X	Oswego County HMP- 2012
Floodplain Maps and/or Studies	X	FEMA- 2013
Staff/Development		
Building Code Official	X	Town Code Enforcement Officer
Local Floodplain Administrator	X	Town Code Enforcement Officer
Public Information Official	X	Town Supervisor
Engineer/Public Works Official	X	On contract

5.2 Emergency Communications, Routes, and Shelters

The Town of Sandy Creek, along with Oswego County, utilize the HyperReach emergency communications system. Major transportation routes within the Town include U.S. Route 11, Interstate 81, State Route 3, and County Route 15. The Town of Sandy Creek has three (3) established emergency shelters:

- Sandy Creek Central School - 124 Salisbury Street, Sandy Creek, NY 13145
- Sandy Creek Town Hall - 1992 Harwood Drive, Sandy Creek, NY 13145
- Sandy Pond Sportsman's Club - 3201 CR 15, Sandy Creek, NY 13145

All of the Town's emergency shelters are ADA-compliant. During emergencies, pets are sheltered at the old Lacona Fire Hall in the Village of Lacona.

5.3 Temporary and Permanent Housing Locations

The potential temporary and permanent housing locations listed below were identified for displaced residents in the Town of Sandy Creek based on the 2017 NYS Hazard Mitigation Planning Standards.

- **Potential Temporary Housing Locations**
 - Elms Golf Club - 2 Country Club Lane, Sandy Creek, NY 13145
 - Colonial Court Campgrounds - 8730 NY-3, Sandy Creek, NY 13145
 - Trailer Park (borders Town and Village) - 332 Ellisburg Street, Sandy Creek, NY 13145
 - Rainbow Shores - 186 S Rainbow Shores Road, Pulaski, NY 13142
- **Potential Permanent Housing Locations**
 - Vacant Town property - off of CR 15

6.0 National Flood Insurance Program

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

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

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

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

The Town of Sandy Creek participates in the NFIP and had twenty-five (25) flood insurance policies in place as of July 2018. The total insurance coverage of these policies is

\$5,361,900, and twenty-four (24) claims have been filed. Of these claims, two (2) are currently open and the remaining twenty-two (22) were closed, eleven (11) of which were closed without payment. A total of \$137,638.72 in payments were made for closed claims. There are no repetitive loss properties in the Town of Sandy Creek.

The Town's Code Enforcement Officer serves as the Local Floodplain Administrator, and flood maps are available for viewing and copying at the Town Hall (1992 Harwood Ave, Sandy Creek, NY 13145). The Town has been maintaining NFIP participation by performing the duties and actions that were listed in the local laws adopted by the Town Board. The Town will continue to comply with the NFIP by enforcing floodplain management requirements and regulating new development in Special Flood Hazard Areas, in addition to other required duties.

7.0 Mitigation Strategy and Prioritization

7.1 Past, Completed, and Ongoing Initiatives

The Town of Sandy Creek proposed seven (7) mitigation actions in the 2012 Oswego County HMP. The details and status of those actions are described below in Table 7 below. One action was re-included for the present Plan update (Increase building setbacks along Lake Ontario).

Table 7. 2012 Hazard Mitigation Actions
Town of Sandy Creek

Proposed Mitigation Action	Hazard(s) Mitigated	2012 Goals & Objectives Met	Implementing Agency	Status
Review emergency evacuation signage within I-81 corridor communities – establish such signage if needed	Severe storm, ice storm, earthquake, tornado, flood, wildfire, winter storm, coastal storm, landslide, terrorism, hazmat (transit)	5-c, 5-e	County EMO, Municipal Boards and Highway/DPW, NYSDOT	The Town did not address this action but emergency signage along I-81 was implemented by the NYSDOT.
Increase building setbacks along Lake Ontario to reduce erosion potential and impacts	Severe storm, landslide	4-b, 4-d	Sandy Creek planning board	No progress to date due to limited funding/staff availability. This action is still relevant and was re-included for the present Plan update.
Pre/post hazard awareness and preparedness information on Town website	All Hazards	1-d, 1-b, 1-c, 5-b, 5-e	Town of Sandy Creek public information official	Complete- flood information available on website
Purchase portable radios for volunteer and aid worker use to coordinate disaster relief efforts	All Hazards	5-b, 5-c, 5-e	Town of Sandy Creek fire dept., County EMO	No progress to date due to limited funding/staff availability.
Acquire/install dry hydrants in populated areas for fire suppression	Fire, Wildfire	4-b	Town of Sandy Creek municipal board	No progress to date due to limited funding/staff availability.
Purchase anti-icing equipment for Town vehicles (plows)	Winter storm, severe storm, ice storm	3-c	Town of Sandy Creek highway/DPW dept., municipal board	No progress to date due to limited funding/staff availability.
Upgrade culverts at Norton, Snyder, Henderson, Tryon Roads in Town Sandy Creek	Severe storm,, flood, winter storm, ice jam	4-d, 5-f	Town of Sandy Creek Highway, County Highway	Complete.

7.2 Proposed Mitigation Actions

The Town proposed three (3) new mitigation actions to be included in the HMP update. These actions are described in Table 8, below and on worksheets included in Attachment A.

Table 8. 2018 Proposed Mitigation Actions Town of Sandy Creek									
Action ID	Mitigation Action	Hazard(s) Mitigated	Implementing Agencies (Lead* & Support)	Planning Mechanism	Timeframe	New or Existing Development	Estimated Cost	Funding Source(s)	Priority
T-Sandy Creek 1	Increase development setbacks for Lake Ontario shoreline	Flood	Code Enforcement Officer*	Comprehensive Plan	1-5 years	New	Low	FEMA- PDM; Local budget	1
T-Sandy Creek 2	Require underground utilities for new development	Utility Failure, Ice Storm, Severe Storm	Town Supervisor*	Comprehensive Plan	5 years	New	Low	Local budget; Private (utility companies)	2
T-Sandy Creek 3	Provide additional training and equipment for emergency response personnel	Hazmat in Transit	Town Fire Dept. *, Oswego County OEM	Comprehensive Emergency Management Plan	5 years	N/A	Low	Local budget, Oswego County	3
Potential Funding Sources									
FEMA PDM: https://www.fema.gov/pre-disaster-mitigation-grant-program									

7.3 Cost-Benefit Analysis

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

8.0 Works Cited


Cole, Charlene. 2016. "Town of Sandy Creek and Towns of Sandy Creek and Lacona". *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. 122-124. Print.


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


Figure 1


**Hazard Area Extent and Location Map –
Town of Sandy Creek**


Legend


- 


Municipal Boundaries
- 


FEMA 100-Year Floodplain
- 


FEMA 100-Year Floodplain-Floodway
- 


FEMA 500-Year Floodplain
- 


Streams
- 


Active Railroads
- 

Critical Facilities
- 

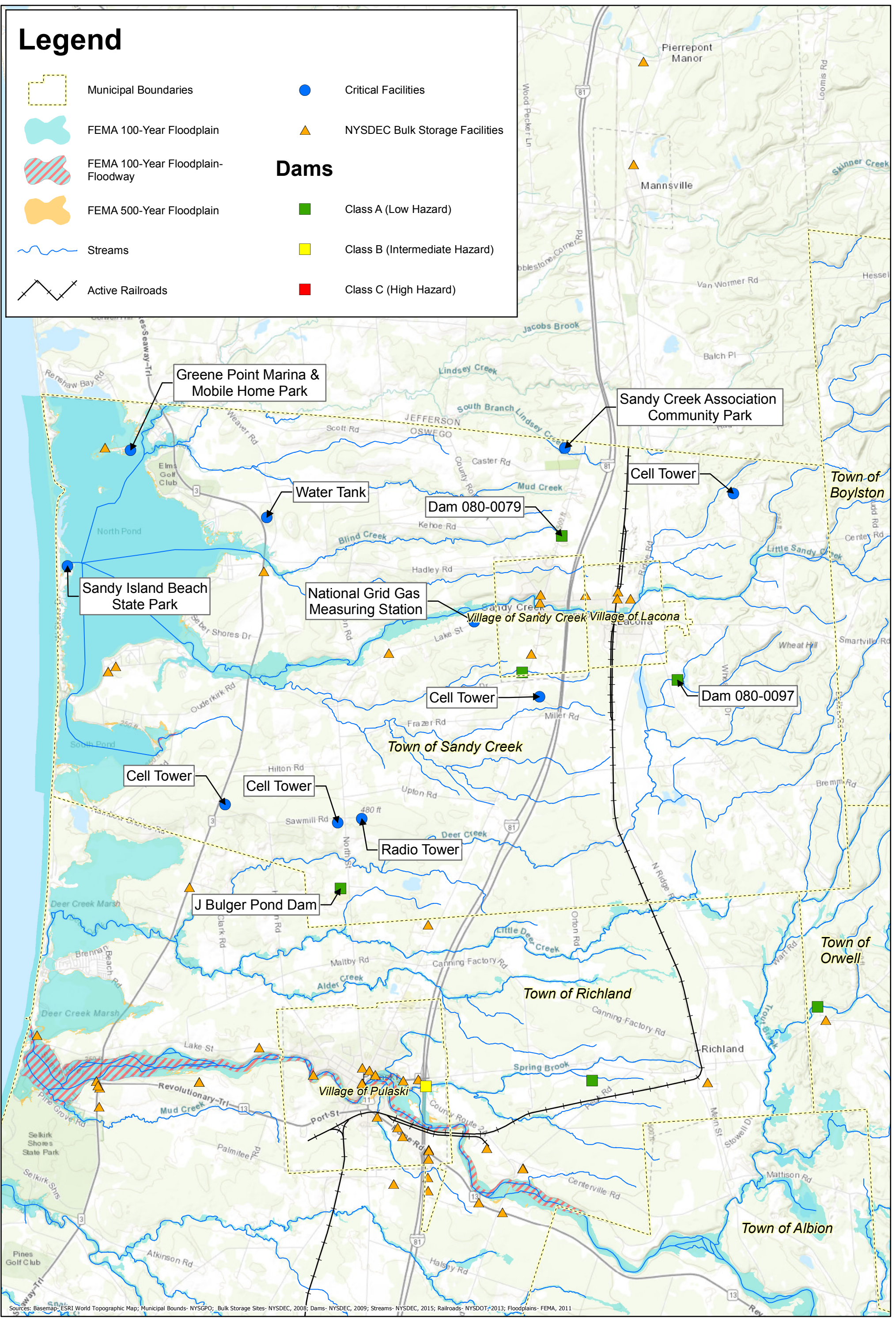
NYSDEC Bulk Storage Facilities
- 

Dams
- 

Class A (Low Hazard)
- 

Class B (Intermediate Hazard)
- 

Class C (High Hazard)



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



Attachment A

**Mitigation Action Worksheets –
Town of Sandy Creek**

Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of Sandy Creek
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Mitigation Action Worksheet	
Project Name:	Increase development setbacks for Lake Ontario shoreline
Project Number:	Sandy Creek Town 1
Risk/Vulnerability	
Hazard of Concern:	Flood
Description of the Problem:	Many properties along the shore of Lake Ontario experienced severe erosion and flooding issues due to the high water levels on the lake in early 2017.
Action of Project Intended for Implementation	
Description of the Solution:	Revise Town code to include more specific building setback ordinances for shoreline development.

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):	Decrease in future flood damages
Useful Life:	Long-term		
Estimated Cost:	\$20,000		

Plan for Implementation			
Prioritization:	#1 (High)	Desired Timeframe for Implementation:	1-5 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA- PDM; Town budget
Responsible Organization:	Code Enforcement Officer	Local Planning Mechanisms to be used in Implementation, if any:	Update Town Building Code, Comprehensive Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	Future flood risks remain
	Revise Town code to include more specific building setback ordinances for shoreline development	\$20,000	Decrease in flooding issues and better protection of shoreline properties.
	Prevent new shoreline development	Low	Not practical. Privately owned land.

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

Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of Sandy Creek
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Mitigation Action Worksheet	
Project Name:	Require underground utilities for new development
Project Number:	Sandy Creek Town 2
Risk/Vulnerability	
Hazard of Concern:	Utility Failure, Ice Storm, Severe Storm
Description of the Problem:	Currently, the Village has primarily overhead utilities which pose a greater risk of utility loss during storm events.
Action of Project Intended for Implementation	
Description of the Solution:	Require underground utilities for areas of new development by revising the Town code.

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:	Medium	Estimated Benefits (losses avoided):	Decreased risk of utility failure during storm events.
Useful Life:	Long-term, ongoing		
Estimated Cost:	\$10,000		

Plan for Implementation			
Prioritization:	#2 (Med)	Desired Timeframe for Implementation:	1-2 years
Estimated Time Required for Project Implementation:	6 months -1 year	Potential Funding Sources:	Town budget
Responsible Organization:	Code Enforcement Officer	Local Planning Mechanisms to be used in Implementation, if any:	Update Town Code, Comprehensive Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	Overhead utility lines may continue to be installed for new development
	Require underground utilities by updating Town building code. When existing overhead utilities are in need of replacement consider converting to underground if possible.	\$1,000	Better informed public in general.
	Replace existing overhead utilities with underground utility lines	\$1 million+	Not practical and very expensive.

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

Oswego County Multi-Jurisdictional Hazard Mitigation Plan

Name of Jurisdiction:	Town of Sandy Creek
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Mitigation Action Worksheet	
Project Name:	Provide additional training and equipment for emergency response personnel
Project Number:	Sandy Creek Town 3
Risk/Vulnerability	
Hazard of Concern:	Hazmat in Transit
Description of the Problem:	Town emergency crews lack training and equipment to respond to potential hazmat incidents.
Action of Project Intended for Implementation	
Description of the Solution:	Provide additional equipment and training sessions for Fire Dept, highway dept to better equip them to deal with a hazmat incident

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:	Medium	Estimated Benefits (losses avoided):	More efficient response to potential hazmat incidents within the Town
Useful Life:	Medium (ongoing)		
Estimated Cost:	\$20,000		

Plan for Implementation			
Prioritization:	#3 (Med)	Desired Timeframe for Implementation:	1-2 years
Estimated Time Required for Project Implementation:	1 year	Potential Funding Sources:	FEMA- PDM; Town budget
Responsible Organization:	Town Fire Dept*	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	
	Provide hazmat response equipment to Fire Dept and Highway Dept	\$10,000	Better equipped to deal with hazmat incidents but some personnel may not be trained properly
	Provide hazmat response equipment and training to Fire Dept and Highway Dept	\$15,000	Ensure all personnel have access to and know how to use hazmat response equipment

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

Attachment B

**STAPLEE Table –
Town of Sandy Creek**

Worksheet #6

STAPLEE Criteria Consideration Table

Mitigation Action Prioritization and Comparison

Jurisdiction Town of Sandy Creek

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