

Jurisdictional Annex

City of Oneida

1. Contacts

The contacts for the City of Oneida regarding this plan are identified as follows:

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2. Municipal Profile

2.1 Population

The 2020 Census estimated that 10,329 people live in the City of Oneida. The City's population has decreased by 9.34% since the 2010 Census (11,393) (U.S. Census Bureau, 2020). The median age in the City is 43.8 years and 19.5% of the population is over the age of 65. The City covers approximately 22.1 square miles. The City has an equalized assessed value of approximately 664 million dollars spread across a variety of property classes.

2.2 Location

The City of Oneida is located in the northeastern corner of Madison County, bordering Oneida County. The City is bordered by the Towns of Lenox and Lincoln to the west, the Town of Stockbridge to the south, and the City of Sherrill and Towns of Vernon and Verona (Oneida County) to the east and north. The City's major transportation routes include State Routes 5, 46 and 365A. The City of Oneida is shown in Figure 1 (Attachment A).

2.3 Governing Body

The City of Oneida is governed by a seven-member Common Council, which includes the Mayor and six councilors.

2.4 Recent and Anticipated Future Development

Since the last County HMP (2017), new development in the City of Oneida included an expansion at the Hood plant (252 Genesee St) and Green Empire Farms (1856 W Elm St), construction of the Roswell Cancer Center (604 Seneca St), and an assisted living facility at 1061 Meadow Dr. In addition, the City's WWTP is currently undergoing significant upgrades, and a Women's Health Center being constructed at 1144 Meadow Dr. An AutoZone store and Byrne Dairy convenience store were recently constructed on Genesee St. Planned developments in the City include a Popeye's restaurant and a bank near Walmart. None of the reported developments are located within the Special Flood Hazard Area. The City's vulnerability to natural hazards has not changed.

3. Capability Assessment

3.1 Planning and Regulatory Capability

The City has considered the 2017 HMP when implementing their existing plans and regulations and progressing projects. The City's HMP update will be incorporated into and referenced by future updates of the plans, policies, ordinances, programs, studies, and reports listed in Table 1, below.

Table 1. Planning Mechanisms and Capabilities		
Planning Mechanism	City of Oneida	Notes
Administration		
Maintenance Programs	Yes	
Mitigation Planning Committee	Yes	
Mutual Aid or Shared Services Agreements	Yes	
Planning Board	Yes	
Zoning Board	Yes	
Development Approvals		
Building Code	Yes	
Building Code Effectiveness Grading Schedule (BCEGS) Evaluation	No	
Fire Department ISO Rating	Yes	3X
Site Plan Review Requirements	Yes	
Special Use Permits	Yes	
Funding Resources		
Authority to Levy Taxes	Yes	
Capital Improvement Project Funds	Yes	
Federal Funding Programs (i.e., USDA, FEMA, others)	Yes	
General Obligation Bonds and/or Special Tax Bonds	Yes	
Impact Fees for New Development	No	
State Funding Programs (i.e., NYSEFC, NYSOCR, NYSDEC, others)	Yes	
Utility Fees (i.e., water, sewer, stormwater, gas, electric)	Yes	Water, Sewer and Lighting Districts
Land Use Regulations		
Density Controls	No	
Flood Insurance Rate Maps	Yes	
Floodplain Ordinance	Yes	
Hillside Development Regulations	No	
Open Space Preservation	No	
Stormwater Management Regulations	Yes	State regulations apply
Streambank Setback Regulations	No	State Health Rules for Septic Systems
Subdivision Regulations	Yes	
Transfer of Development Rights	Yes	State and Federal Programs

		Available for Agriculture
Zoning Ordinance	Yes	
Natural Resources		
Forest/Vegetation Management	Yes	NYS DEC 480A program available
Stream Corridor Management	Yes	Logjam Clearing for Oneida Creek by DPW & City Engineer
Stream Dumping Regulations	Yes	State rules apply
Urban Forestry and Landscape Management	Yes	City Arborist evaluates hazard trees in parks and ROW's
Watershed Management	Yes	Oneida Lake Program
Wetland Regulations	Yes	State and Federal rules apply
Plans		
Capital Improvement Plan	Yes	WWTP Upgrade
Comprehensive Emergency Management Plan	Yes	County has this plan in place. City also has a disaster plan (working on update - 2022)
Comprehensive Plan	Yes	
Continuity of Operations Plan	No	County has this plan in place.
Economic Development Plan	No	Working through strategic investment plan through DRI process
Other Plans (specify)	Yes	Adopted Public Health Plan in response to COVID-19 pandemic (required by NYS)
Programs/Organizations		
Climate Smart Community	Yes	Registered
Local Emergency Preparedness/ Disaster Response Organizations	Yes	Fire Department, City Police, Vineall Ambulance
Local Environmental Protection Organizations	No	
National Weather Service StormReady Certification	No	County is certified
Outreach Programs	Yes	Education of Elected to NIMS Standards
Partnerships with private entities addressing mitigation or disaster response	No	
School Programs or Adult Educational Programs	Yes	Fire Safety Education
Staff Positions		
Civil Engineer	Yes	
Code Enforcement Officer	Yes	
Emergency Manager	Yes	
Floodplain Administrator	Yes	Code Enforcement Officer
Planner/GIS Coordinator	Yes	Planning Department; County assists with GIS
Technical Abilities		
Grant Writing	Yes	
Hazard Information Centers	No	
Hazard Warning Systems	Yes	

3.2 Emergency Communications, Routes, and Shelters

The City shares emergency communications with the public via their website, Facebook page, email, and electric sign board. The City Planning Department maintains an Instagram account as well that could be used for outreach. Additionally, the City Police and Fire Departments are able to travel through the City to verbally share information with residents. The City is also covered by Madison County's emergency communication system. Major transportation routes within the City include State Routes 5, 46 and 365A. The City's emergency shelter locations are summarized in Table 2, below.

Facility	Address	Owner/ Occupant	Support medical needs?	ADA Compliant?	Pets accepted?	Notes
Oneida City Offices	109 North Main St	City of Oneida	Yes	Yes	No	Backup power available
Oneida Parks & Recreation (Armory)	217 Cedar St	City of Oneida	Yes	Yes	Yes	Backup power available
Oneida YMCA	701 Seneca St	YMCA & WWC Community Center Inc.	Yes	Yes	No	No backup power
St. Patrick's School	354 Elizabeth St	St. Patrick's Church	Yes	Yes	Yes	No backup power

3.3 Temporary and Permanent Housing Locations

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

- **Potential Temporary Housing Locations**
 - Open space at local parks, including Maxwell Field and Harmon Park
- **Potential Permanent Housing Locations**
 - Privately owned vacant land off Fitch Street (a few lots are vacant) or other portions of the City (coordination required with landowners for potential property purchase or subdivisions)

4. Hazard Vulnerabilities and Ranking

4.1 Risk Assessment

The City reviewed multiple natural hazards to include in the HMP update. The hazard analysis criteria is summarized in Table 3. The City's natural hazard analysis results are provided in Table 4.

Score	Extent	Onset	Impact	Frequency	Total Score	Overall Vulnerability
1	One location	Days of warning	Minor damages/injuries	Rare	4 to 5	Low
2	Several locations	Hours of warning	Moderate damages/injuries	Infrequent	6 to 8	Moderate
3	Large area	No warning	Severe damages/injuries	Regular	9 to 12	High

Hazard Event	Extent	Onset	Impact (Damages and Injury)	Frequency	Total Score Overall Vulnerability	Jurisdiction Rank
Flood	2	2	3	3	10 - High	1
Tornado	3	2	3	1	9 - High	2
Earthquake	3	3	2	1	9 - High	3
Severe Thunderstorm/ Wind/Hail	3	1	2	2	8 - Moderate	4
Severe Winter Storm	3	1	2	2	8 - Moderate	5
Ice Jam	2	2	2	2	8 - Moderate	6
Ice Storm	3	1	2	1	7 - Moderate	7
Extreme Temperatures	3	1	1	2	7 - Moderate	8
Drought	3	1	1	1	6 - Moderate	9

4.2 Critical Facilities

Critical facilities include any facility that is critical for emergency response or that requires special emergency response in the event of hazardous incidents as identified by the City of Oneida. Table 5, below, denotes the types and locations of critical facilities within the City. Critical facilities are shown on Figure 1 (Attachment A).

Table 5. Critical Infrastructure in the City of Oneida		
Facility Name	Address	Located in Floodplain
A Little Respite Center (Madison County ARC)	2304 Genesee St	500-year
Cell Tower	1610 Crescent Ave	No
Cell Tower	1972 Fairview Ave	No
Cell Tower	652 Fitch St	No
City of Oneida DPW	409 Sconondoa St	100-year
City of Oneida Offices and Fire Dept.	109 North Main St	No
City of Oneida Police Dept.	108 Main St	No
County Radio Tower Site 10	5088 Forest Av	No
Electrical Substation	215 Sconondoa St	100-year
Electrical Substation	1001 Burdick Ave	No
Kallet Civic Center	157 Main St	No
Madison County Jail	138 N Court St	100-year
Madison-Oneida BOCES and Transportation Center	1136-1141 Freedom Dr	No
Mount Hope Reservoir	1222 Mt Hope Ave	No
Natural Gas Metering Station	Grand St	No
North Broad Street Elementary School	230 North Broad St	No
NYS Police Troop D Headquarters	261 Genesee St	No
NYS DOT Facility	635 Lenox Ave	No
Oneida Dept. of Parks and Recreation (Armory)	217 Cedar St	No
Oneida Health ENT Specialists	221 Broad St	No
Oneida Health Hospital	321 Genesee Street	No
Oneida High School	560 Seneca St	100-year
Oneida Housing Authority	226 Farrier Ave	No
Oneida Indian Nation	West Rd	No
Oneida Public Library	220 Broad St	No
Oneida WWTP	387 Harden St	100-year and 500-year
Oneida YMCA	701 Seneca St	No
Radio Station	237 Genesee St	No
Radio Tower	5035 Forest Ave	No
Seneca Street Elementary School	436 Seneca St	100-year

Table 5. Critical Infrastructure in the City of Oneida		
Facility Name	Address	Located in Floodplain
Sewer Pump Stations	Broadway, Main St, Lenox Ave, Kenwood Ave, White Pines, Fitch St	No
Solar Farm	Brewer Rd	No
St. Patrick's School	354 Elizabeth St	No
Verizon	125 Lenox Ave	No
Vineall Ambulance	317 Sconondoa St	100-year
Water Pump Station	1091 N Lake St	No
Water Pump Station	1456 Glenwood Ave	No
Water Pump Station	2373 Genesee St	No
Water Pump Station	2754 Middle Rd	No
Water Storage Tanks (2)	Baker Reservoir	No
Water Supply Facility	1111 Richter Dr	No
Willard Prior Elementary School	East Ave	No

FEMA's High Hazard Potential Dam (HHPD) grant program offers funding assistance for dam rehabilitation projects. Dams may be owned by public or private entities, and must be classified as high-hazard potential and have an emergency action plan (EAP) in place. Federally-owned dams, dams built under the authority of the Secretary of Agriculture, and hydroelectric dams licensed by the Federal Energy Regulatory Commission (FERC) with an authorized capacity of more than 1.5 megawatts are not eligible for the 2021 funding program. In New York State, municipalities and non-profit organizations may apply for funding as sub-applicants to the NYSDEC. Municipalities must have an approved hazard mitigation plan that incorporates dam risk to be eligible for HHPD program funding. According to the NYSDEC, there are 13 intermediate or high-hazard potential dams (Class B or C) in Madison County. These dams are shown on Figure 5.4, in Appendix A of the main body of the plan. Most of the intermediate or high-hazard potential dams in the County are owned by the NYS Canal Corporation or are privately owned, and municipalities do not have jurisdiction over these structures. Three of these dams are located in the City of Oneida, which are shown on Figure 1 (Attachment A). All three dams are owned by the City of Oneida (Table 6, below). The City chose to include information regarding these dams in their annex to meet the HHPD program requirements.

Table 6. Intermediate and High-Hazard Potential Dams (NYSDEC, 2021)					
Name	Hazard Classification*	Waterbody	Owner	Emergency Action Plan Date	Last NYSDEC Inspection Date
Higinbotham Brook Watershed Dam	C	Higinbotham Brook	City of Oneida	11/26/2019	3/27/2019
Lower Reservoir Dam	B	Oneida Creek	City of Oneida	11/26/2019	11/24/2020
Oneida Water Supply Dam	C	None	City of Oneida	12/27/2019	11/24/2020
*Both Class B (Intermediate Hazard) and Class C (High Hazard) dams were reviewed for risk assessment purposes.					

The City indicated that the banks of the Higinbotham Brook Watershed Dam are eroding and in need of stabilization. Additionally, the City indicated that the Lower Reservoir Dam is leaking and in need of an engineering assessment. Flood-related mitigation actions that apply to the HHPD grant program are detailed in Section 7, below. The City of Oneida will continue to comply with the NYSDEC dam safety program to minimize risk associated with these structures.

5. 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 Madison County is included within Section 5.0 of the main body of the Hazard Mitigation Plan. Historical tornado and earthquake records are reported for the last ten years (2012-2022). All other hazard profiles report events that have occurred in the last five years (2017-2022).

The probability of climate-related hazard events is expected to increase in the future within the City of Oneida. 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 do not have historical records, but they were profiled for future mitigation planning consideration. The City of Oneida chose not to profile wildfire or landslide in their annex even though these hazards were profiled for the County. The City does not have a history of nor do they have any significant concerns regarding these hazards.

5.1 Flood

5.1.1 *Description*

For a description of this hazard, please see Section 5.2 of the main body of the plan.

5.1.2 *Hazard Vulnerability*

The City's overall vulnerability for a flood is high, as documented in their hazard analysis in Section 4.1. The City is drained by Oneida Creek and its tributaries. Oneida Creek flows along the northern and eastern edge of the City and outlets to Oneida Lake. FEMA provides flood insurance rate maps for the City of Oneida. The 100-year floodplain corresponds with areas that are at high risk for flooding (1% likely to flood any given year), and areas within a 500-year floodplain are at moderate flood risk (0.2% likely to flood in any given year). Figure 1 (Attachment A) shows FEMA mapped floodplains within the City. Table 7 summarizes the amount of land within the City of Oneida that is located within 100-year floodplain, as mapped by FEMA. The Oneida

Wastewater Treatment Plant is located in the 100-year and 500-year floodplains of Oneida Creek. The Oneida Dept. of Public Works (DPW), Oneida High School, Vineall Ambulance, Seneca Street Elementary School, Madison County Jail, and an electrical substation on Sconondoa St are all located in the 100-year floodplain of Oneida Creek. The Madison County ARC Respite Center on Genesee St is in the 500-year floodplain of Oneida Creek. The inundation areas of each of the City's three intermediate or high hazard potential dams are also vulnerable to flooding impacts.

Table 7. Summary of Areas in Floodplains <i>(Source: FEMA Q3 Digital Floodplain Data, 1996)</i>		
City of Oneida Total Area	Percent of Total Area	
	100-Year Floodplain	500-Year Floodplain
14179.7 acres	8.1%	0.5%

5.1.3 Historical Hazard Occurrences and Damage Estimates

According to the NCDC, in the past five years, one flood record was reported for impact the City of Oneida related to an ice jam on January 12, 2018, but no damages were reported for this event. The City reports local records of flooding on Oneida Creek behind the DPW facility, and along Route 5, Florence Ave, and Upper Lenox Street. In addition, the City reports local records of flooding along Sconondoa Creek. Other than the DPW facility, the City has not experienced flooding issues at the other critical facilities located in mapped floodplains that are listed above in Section 5.1.2.

As described in Section 6.0 of this annex, NFIP loss claims data were requested from FEMA and a response is pending. According to the County's 2017 HMP, there are three repetitive loss properties in the City, two single-family homes and one multi-family home. Each property has experienced two flood losses as of 12/31/2016, with total payments of \$79,661.

5.1.4 Future Potential Impacts

The City's overall vulnerability for a flood remains high. Flood concerns are generally restricted to properties along Oneida Creek and its tributaries within the City. The City is proposing multiple flood-related mitigation actions for the HMP update, which are detailed in Section 7 of this annex. Once implemented, these actions will reduce the City's future vulnerability to

flood events. The frequency and magnitude of flood events may increase due to climate change.

5.2 Tornado

5.2.1 *Description*

For a description of this hazard, please see Section 5.8 of the main body of the plan.

5.2.2 *Hazard Vulnerability*

The City's overall vulnerability for a tornado is high, as documented in their hazard analysis in Section 4.1. The entire City of Oneida is susceptible to damages from a tornado. A tornado can result in severe damage to homes, over-turned automobiles and leveling of utility lines. This event is highly likely to result in damages to private and public infrastructure and property. Topography within the City is generally flat to gently sloping. A tornado could create a longer track and cause more damage in this area compared to areas in the southern portion of the County with more hilly topography. A tornado could result in severe damage to homes, over-turned automobiles and leveling of utility lines.

5.2.3 *Historical Hazard Occurrences and Damage Estimates*

Three tornados have occurred in Madison County within the past ten years, but none of these records were located in the City of Oneida. The NCDC reports no specific tornado events that occurred in the City of Oneida in the last 10 years.

5.2.4 *Future Potential Impacts*

The City's overall vulnerability for a tornado remains high. Damages from a tornado event can be devastating, and the frequency and magnitude of tornado events may increase due to climate change.

5.3 Earthquake

5.3.1 *Description*

For a description of this hazard, please see Section 5.5 of the main body of the plan.

5.3.2 *Hazard Vulnerability*

The City's overall vulnerability for an earthquake is high, as documented in their hazard analysis in Section 4.1. According to Figure 5.8 (provided in Appendix A of the main plan), the City has a PGA Hazard rating of 8-10%g. An earthquake could impact any location within the City, though historically, the City has not experienced significant earthquake damages. Earthquakes that damage the City's critical infrastructure or emergency evacuation routes would result in the most significant impacts to the City and its residents.

5.3.3 *Historical Hazard Occurrences and Damage Estimates*

According to the USGS Earthquake Catalog, there are no historical records of earthquakes in the City of Oneida. An earthquake has the potential to cause hundreds of thousands of dollars in damages.

5.3.4 *Future Potential Impacts*

The City's overall vulnerability to earthquakes remains high due to the lack of warning and potential large impact area associated with this hazard. However, the City is within an area of light seismic activity, and is not likely to experience significant earthquake damages.

5.4 Severe Thunderstorm, Windstorm, or Hail

5.4.1 *Description*

For a description of these hazards, please see Section 5.1 of the main body of the plan.

5.4.2 Hazard Vulnerability

The City's overall vulnerability for a severe thunderstorm, windstorm, or hail event is moderate, as documented in their hazard analysis in Section 4.1. The entire City is susceptible to damages from a severe thunderstorm, windstorm, or hail 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. The City of Oneida DPW completes tree maintenance within road right of ways to minimize potential damages to overhead utility lines. Utility corridors are generally maintained by private utility companies. Damages to the City's critical infrastructure or primary transportation routes (State Routes 5, 46 and 365A) would be most impactful to City residents. More densely developed areas, generally in the eastern portion of the City, would be most impacted by storm damages.

5.4.3 Historical Hazard Occurrences and Damage Estimates

The NCDC reports three specific severe storm events that occurred in the City of Oneida within the past five years. These records were all thunderstorm winds. Estimated damages for the City of Oneida ranged from \$1,000 to \$20,000 per event (Table 8). Actual damages were likely greater than those estimated by the NCDC.

Table 8. Severe Storm Event Records for the City of Oneida				
Event Type	Date	Magnitude	Estimated Property Damage	Estimated Crop Damage
Thunderstorm Wind	10/15/2017	50 knots	\$20,000	-
Thunderstorm Wind	5/26/2021	50 knots	\$1,000	-
Thunderstorm Wind	6/30/2021	50 knots	\$1,500	-
Total			\$22,500	None reported

5.4.4 Future Potential Impacts

The City's overall vulnerability for a severe thunderstorm, windstorm, or hail event remains moderate. The City DPW and private utility companies will continue to maintain road right-of-ways and utility corridors to prevent

significant infrastructure damage during severe storms. The frequency and magnitude of severe storm events may increase due to climate change.

5.5 Severe Winter Storm

5.5.1 *Description*

For a description of this hazard, please see Section 5.3 of the main body of the plan.

5.5.2 *Hazard Vulnerability*

The City's overall vulnerability for a severe winter storm is moderate, as documented in their hazard analysis in Section 4.1. The entire City of Oneida is susceptible to damages from a severe winter storm event. The City DPW clears City streets during heavy snow events. Roadway safety is a major concern during severe winter storm events. The City of Oneida DPW completes tree maintenance within road right of ways to minimize potential damages to overhead utility lines. Utility corridors are generally maintained by private utility companies. Damages to the City's critical infrastructure or primary transportation routes (State Routes 5, 46 and 365A) would be most impactful to City residents. More densely developed areas, generally in the eastern portion of the City, would be most impacted by storm damages.

5.5.3 *Historical Hazard Occurrences and Damage Estimates*

The City of Oneida has been affected by a number of severe winter storm events reported for Madison County, which are described in Section 5.3 of the main body of the plan. These storms typically affect more than one area within the County. The NCDC does not report any winter storm damage estimates specific to the City of Oneida.

5.5.4 *Future Potential Impacts*

The City's overall vulnerability for a severe winter storm remains moderate. The City DPW and private utility companies will continue to maintain road right-of-ways and utility corridors to prevent significant infrastructure damage during winter storms. The severity and frequency of severe winter storms may increase due to climate change.

5.6 Ice Jam

5.6.1 Description

For a description of this hazard, please see Section 5.11 of the main body of the plan.

5.6.2 Hazard Vulnerability

The City's overall vulnerability for an ice jam is moderate, as documented in their hazard analysis in Section 4.1. Properties in the City located along Oneida Creek are most vulnerable to ice jams.

5.6.3 Historical Hazard Occurrences and Damage Estimates

The U.S. Army Corps of Engineers (USACE) Cold Regions Research and Engineering Laboratory (CRREL) reports no specific ice jam events for the City of Oneida in the past five years. The NCDC reported one flood event in the last five years for the City that was caused by an ice jam. This event occurred on January 12, 2018, and no damages were reported by NCDC. The City reports local records of ice jams along Oneida Creek behind the City DPW property.

5.6.4 Future Potential Impacts

The City's overall vulnerability for an ice jam remains moderate. Properties along Oneida Creek remain vulnerable to ice jams, but these events typically do not cause significant property damages. The frequency and magnitude of ice jam events may increase due to climate change.

5.7 Ice Storm

5.7.1 Description

For a description of this hazard, please see Section 5.7 of the main body of the plan.

5.7.2 Hazard Vulnerability

The City's overall vulnerability for an ice storm is moderate, as documented in their hazard analysis in Section 4.1. The City of Oneida DPW completes tree maintenance within road right of ways to minimize potential damages to overhead utility lines. Utility corridors are generally maintained by private utility companies. Damages to the City's critical infrastructure or primary transportation routes (State Routes 5, 46 and 365A) would be most impactful to City residents. More densely developed areas, generally in the eastern portion of the City, would be most impacted by storm damages.

5.7.3 Historical Hazard Occurrences and Damage Estimates

The NCDC reports one ice storm in Madison County within the past five years, which was reported for the entire County. This event occurred on February 10, 2021 and it is described in Section 5.7 of the main body of the plan. No damage estimates related to ice storms are reported specific to the City of Oneida.

5.7.4 Future Potential Impacts

The City's overall vulnerability for an ice storm remains moderate. The City DPW and private utility companies will continue to maintain road right-of-ways and utility corridors to prevent significant infrastructure damage during ice storms.

5.8 Extreme Temperatures

5.8.1 Description

For a description of this hazard, please see Section 5.6 of the main body of the plan.

5.8.2 Hazard Vulnerability

The City's overall vulnerability for an extreme temperature event is moderate, as documented in their hazard analysis in Section 4.1. Extreme temperatures typically affect most or all of the County, and the entire City of Oneida is susceptible to this hazard. Extreme temperature events tend to have greater

impacts on vulnerable populations, including older adults (over 65 years), young children (under 5 years), people with health problems, or people who cannot afford to sufficiently heat or cool their homes. Approximately 6.5% of the population in the City is under 5 years old, and 19.4% of the population is over 65 years old. Approximately 10.4% of the City's population is below the poverty level. These populations are at a higher risk of being impacted by extreme temperature events.

5.8.3 Historical Hazard Occurrences and Damage Estimates

The NCDC reports three extreme temperatures in Madison County within the past five years. Each of these events was an extreme cold/wind chill event reported countywide. Details of these events are described in Section 5.5 of the main body of the plan. No damage estimates related to extreme temperatures are reported specific to the City of Oneida.

5.8.4 Future Potential Impacts

The City's overall vulnerability for an extreme temperature event remains moderate. Extreme temperatures are likely to increase in frequency and extremity in the future due to climate change.

5.9 Drought

5.9.1 Description

For a description of this hazard, please see Section 5.9 of the main body of the plan.

5.9.2 Hazard Vulnerability

The City's overall vulnerability for a drought is moderate, as documented in their hazard analysis in Section 4.1. Residents in the City are served by municipal water, and the City has a reliable water source (a surface water reservoir located in Oneida County). Agricultural areas would experience the most significant impacts. The City contains several agricultural properties, which are located primarily in the western and southern portions of the City.

5.9.3 Historical Hazard Occurrences and Damage Estimates

The NCDC reports no specific drought events for the City of Oneida. Agricultural lands would be most susceptible to a drought event. The City indicated that they have not experienced water supply issues in the past for their water system, even during drier years.

5.9.4 Future Potential Impacts

The City's overall vulnerability for a drought remains moderate. Agricultural properties would be most susceptible to drought impacts. Droughts are likely to increase in frequency and magnitude in the future due to climate change.

6. 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 City of Oneida currently participates in the NFIP (community ID 360408). The City joined the NFIP on 8/5/1985, and its current FIRM(s) became effective on 2/23/2001. NFIP loss claims data were requested from FEMA and a response is pending. According to the County's 2017 HMP, there are three repetitive loss properties in the City, two single-family homes and one multi-family home. Each property has experienced two flood losses as of 12/31/2016, with total payments of \$79,661. More current repetitive loss data from FEMA is pending. The City will continue to comply with the NFIP by

enforcing floodplain management requirements and regulating new development in Special Flood Hazard Areas, among other required duties.

7. Mitigation Strategy and Prioritization

7.1 Past, Completed, and Ongoing Initiatives

The City proposed thirteen mitigation actions in the 2017 Madison County HMP, and the status of each action is summarized in Table 9, below. Three of the City's 2017 mitigation actions were re-included for the 2022 update (these actions were combined into one action for the HMP update since they involved work at the same location).

Table 8. Status of 2017 Mitigation Actions				
Project Name	Description	Hazard(s) Mitigated	Lead Agency	Status
Special Flood Hazard Area Buy-out	The City will work with NYS DHSES and FEMA to develop a buy-out program to permanently remove structures from the special flood hazard area.	Flood	City of Oneida DPW	Complete. 135 Structures were removed from the special flood hazard area.
City of Oneida DPW Garage Relocation	The project will relocate the City DPW garage and related facilities out of the 100-year floodplain boundary. A new facility with sustainable features would be designed, bid and then constructed on City-owned property.	Flood	City of Oneida DPW	In progress. This mitigation action was re-included in the HMP update (combined with two other 2017 actions proposed on the same property).
Relocation of the Oneida City Water Department Garage	The project will relocate the Water Department to a new facility out of the 100-year floodplain.	Flood	City of Oneida DPW	In progress. This mitigation action was re-included in the HMP update (combined with two other 2017 actions proposed on the same property). Funded by DASNY and the City's budget.
Relocation of the Oneida City Salt Shed	The project will relocate the salt shed to a new facility out of the 100-year floodplain.	Flood	City of Oneida DPW	In progress. This mitigation action was re-included in the HMP update (combined with two other 2017 actions proposed on the same property).
Flood Impacted Housing Demolition	The flood impacted homes are structurally unstable and unfit to live in.	Flood	City of Oneida DPW	Complete. Corresponds with the Special Flood Hazard Area Buy-out project mentioned above.
Sealed Sanitary Manholes	This project will install watertight frames and grates for the identified 67 sanitary sewer manholes located within the 100-year floodplain.	Flood	City of Oneida DPW	Complete.

Table 8. Status of 2017 Mitigation Actions

Project Name	Description	Hazard(s) Mitigated	Lead Agency	Status
Oneida Armory Flood Barrier Installation	The project will install a FEMA approved stackable or passive flood barrier for the 16-ft. wide garage door and entry access.	Flood	City of Oneida DPW	Not progressed. No longer considered a priority by the City, and not re-included in the HMP update.
Maxwell Field Streambank Stabilization and Restoration	This project will repair, reestablish and stabilize approximately 485 linear feet of streambank through replacement of rip-rap and geotextile.	Flood	City of Oneida DPW	Completed in 2016. The bank was realigned behind the park, and jetties were installed to direct water away from the park.
Sunset Lake Dam Rehabilitation	Conduct an inspection to determine the needs of this location, develop a plan for immediate improvements and preventative maintenance.	Flood	City of Oneida DPW	Not progressed; no longer a priority. The City does not have concerns regarding this dam. Not re-included in the HMP update.
Higinbotham Brook Channel Improvements	Upgrading structure under roads and bridges would reduce flooding of residential and commercial properties from a 100-year storm.	Flood	City of Oneida DPW	Actively in progress; not re-included for HMP update.
Housing Needs Evaluation	This evaluation would also work with the City to identify options for housing relocation to areas outside the floodplain.	Flood	City of Oneida DPW	Actively in progress; will be part of the City's comprehensive plan update. The City is currently looking into smart growth grant to progress. Not re-included in the HMP update.
Affordable Downtown Rental Housing	This project would allow for an affordable housing option residents in need of relocation while keeping them in the same neighborhood, school, church, etc.	None	City of Oneida DPW	Actively in progress; will be part of the City's comprehensive plan update. The City is currently looking into smart growth grant to progress. Not re-included in the HMP update.
Residential Flood-proofing Assistance Program	This project will provide assistance to flood-proof homes within the 100-year floodplain which are unable to relocate.	Flood	City of Oneida DPW	Not progressed. This mitigation action would need to be coordinated with FEMA or NYS DHSES; City does not have authority to improve private residences. Not re-included in the HMP update.

7.2 Proposed Mitigation Actions

The City re-included three mitigation actions from the 2017 HMP, which were combined into one action, Oneida 1 (all involved work in the same location). The City proposed four new mitigation actions to be included in the HMP update. These actions are described in Table 10, below and on worksheets included in Attachment A.

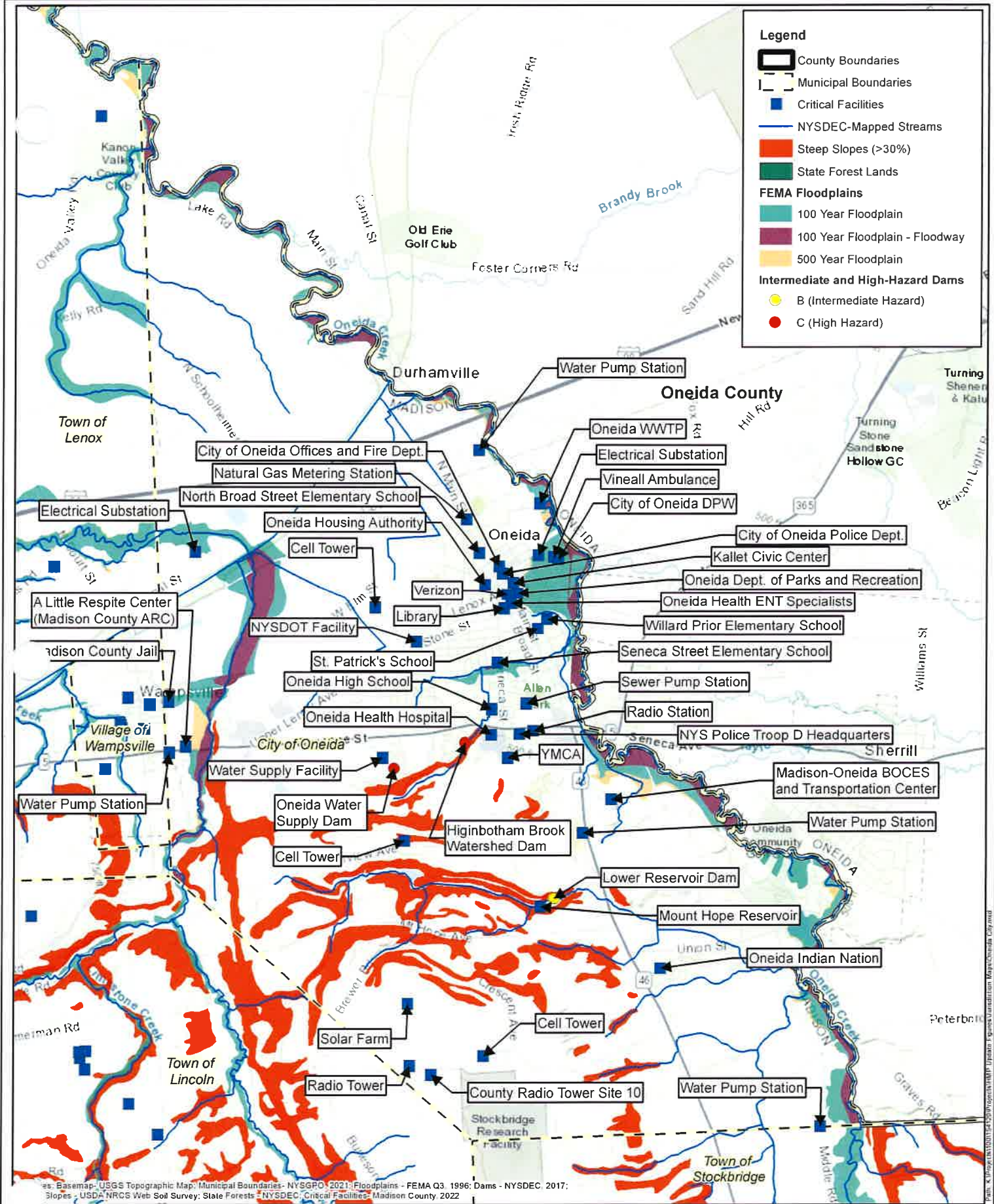
Action ID	Mitigation Action	Hazard(s) Mitigated	Implementing Agencies (Lead* & Support)	Planning Mechanism	Timeframe	New or Existing Development	Estimated Cost	Funding Source(s)	Priority
Oneida 1 (re- included from 2017 HMP)	Department of Public Works Infrastructure Relocation	Flood	City of Oneida DPW	N/A	1 year	Existing	\$5 Million	City Budget, FEMA - BRIC	1
Oneida 2	Glenmore Dam Improvements	Flood	City of Oneida DPW	Comprehensive Plan, Dam EAP	1 year	Existing	\$10 million	FEMA - HHPD Program, City Budget	2
Oneida 3	Sconodaa Street Culvert Upgrade	Flood	City of Oneida DPW	N/A	1 year	Existing	\$500,000	City Budget	3
Oneida 4	Mount Hope (Lower Reservoir) Dam Study	Flood	City of Oneida DPW	Comprehensive Plan, Dam EAP	1 year	Existing	\$100,000	FEMA - HHPD Program, City Budget	4
Oneida 5	Higinbotham Brook Dam Engineering Study	Flood	City of Oneida DPW	Comprehensive Plan, Dam EAP	1 year	Existing	\$100,000	FEMA - HHPD Program, City Budget	5

7.3 Cost-Benefit Analysis

Each of the City's proposed mitigation actions were evaluated and prioritized using the STAPLEE cost-benefit analysis described in Section 7.2.3 of the main body of the plan. The City's STAPLEE worksheet is provided in Attachment A. The STAPLEE analysis considers the following lenses of evaluation: social, technological, administrative, political, legal, economic, and environmental. It also considers the level of overall costs and benefits of the action.

Attachment A

Figure 1, Mitigation Action Worksheets, and STAPLEE Worksheet



Madison County HMP Update Mitigation Action Worksheet

Jurisdiction: City of Oneida

Mitigation Action	
Project ID:	Oneida 1
Project Name:	Department of Public Works Infrastructure Relocation
Risk/Vulnerability	
Hazard of Concern:	Flood
Description of the Problem:	The City DPW garage, water department garage, and salt shed are located on the City DPW property. The property is located within the 100-year floodplain of Oneida Creek, which puts the infrastructure at a high risk of flooding. The City has experienced recurring flood issues at this location.
Proposed Action	
Description of the Solution:	Relocation of the City DPW garage, water department garage, and salt shed outside of the 100-year floodplain.

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

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

Level of Protection:	High	Estimated Benefits (losses avoided):	Reduced flood damages to critical infrastructure.
Useful Life:	50+ years		
Estimated Cost:	\$5 million		

Plan for Implementation			
Priority (High, Medium, Low):	High	Responsible Organization:	City of Oneida DPW
Desired Timeframe for Implementation:	1 year	Potential Funding Sources:	City Budget, FEMA - BRIC
Estimated Time Required to Implement:	1 year	Local Planning Mechanisms to be used in Implementation, if any:	N/A

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	Critical infrastructure remains at risk of flood damages.
	Add flood-proofing measures to existing facilities	\$3 million	Significant renovations would be needed, not reasonable
	Relocation of DPW garage, water garage, and salt shed	\$5 million	Would protect all associated infrastructure from flood damages.

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

Madison County HMP Update Mitigation Action Worksheet

Jurisdiction: City of Oneida

Mitigation Action	
Project ID:	Oneida 2
Project Name:	Glenmore Dam Improvements
Risk/Vulnerability	
Hazard of Concern:	Flood - HHPD
Description of the Problem:	The Glenmore Dam is the City's water supply reservoir dam, which is located in the Town of Annsville (Oneida County), but owned by the City of Oneida. The dam is classified as a high-hazard potential dam by the NYSDEC, and is in need of structural improvements to remain safe.
Proposed Action	
Description of the Solution:	Modify and complete structural rehabilitation of the existing 35 foot high concrete gravity dam.

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

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

Level of Protection:	High	Estimated Benefits (losses avoided):	Increased structural integrity of dam.
Useful Life:	40 years		
Estimated Cost:	\$10 Million		

Plan for Implementation			
Priority (High, Medium, Low):	High	Responsible Organization:	City of Oneida DPW
Desired Timeframe for Implementation:	2 years	Potential Funding Sources:	FEMA - HHPD Program, City Budget
Estimated Time Required to Implement:	1 year	Local Planning Mechanisms to be used in Implementation, if any:	Comprehensive Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	Worsening condition of dam
	Complete structural improvements to dam	\$10 Million	Protect dam from worsening structural integrity and dam failure.
	Decommission dam and find new source for City water supply	\$20 million +	Not realistic.

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

Madison County HMP Update Mitigation Action Worksheet

Jurisdiction: City of Oneida

Mitigation Action	
Project ID:	Oneida 3
Project Name:	Sconondoa Street Culvert Upgrade
Risk/Vulnerability	
Hazard of Concern:	Flood
Description of the Problem:	A portion of a tributary of Oneida Creek is culverted beneath a former industrial building located at 210 Sconondoa Street and the roadway. The culvert pipe is undersized which creates a bottleneck for stream flow, and results in recurring flooding issues.
Proposed Action	
Description of the Solution:	Demolish building and replace culvert with new, larger pipe to better convey flows.

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

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

Level of Protection:	High	Estimated Benefits (losses avoided):	Reduced damages to roadways caused by flooding. Improved hydraulic capacity of stream channel.
Useful Life:	30-50 years		
Estimated Cost:	\$500,000		

Plan for Implementation			
Priority (High, Medium, Low):	High	Responsible Organization:	City of Oneida DPW
Desired Timeframe for Implementation:	2 years	Potential Funding Sources:	City Budget
Estimated Time Required to Implement:	1 year	Local Planning Mechanisms to be used in Implementation, if any:	None

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change from existing conditions
	Replace culvert in-kind	\$100,000	Short-term maintenance action to improve structural resiliency, but does not increase flood flow capacity.
	Replace with larger culvert	\$500,000	Long-term solution; reduces flood damages by increasing flood flow capacity for crossing.

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

Madison County HMP Update Mitigation Action Worksheet

Jurisdiction: City of Oneida

Mitigation Action	
Project ID:	Oneida 4
Project Name:	Mount Hope (Lower Reservoir) Dam Study
Risk/Vulnerability	
Hazard of Concern:	Flood - HHPD
Description of the Problem:	The Mount Hope (Lower Reservoir) Dam is leaking and in need of improvements. This dam is classified as an intermediate hazard dam. Worsening leaks could result in dam failure, which could be catastrophic for the City.
Proposed Action	
Description of the Solution:	An engineering study is needed to assess the leak issues at the dam and review its overall structural integrity. The study will review design alternatives to improve the dam and reduce future flood hazards associated with dam failure.

Is this project related to a Critical Facility? ☐ Yes ☒ No
(If yes, this project must intend to protect to the 500-year flood event or the actual worst damage scenario, whichever is greater)

Level of Protection:	Low	Estimated Benefits (losses avoided):	Comprehensive review of dam structure, identification of necessary improvements to reduce flood risk
Useful Life:	5 years		
Estimated Cost:	\$100,000		

Plan for Implementation			
Priority (High, Medium, Low):	Low	Responsible Organization:	City of Oneida DPW
Desired Timeframe for Implementation:	5 years	Potential Funding Sources:	FEMA - HHPD Program, City Budget
Estimated Time Required to Implement:	1 year	Local Planning Mechanisms to be used in Implementation, if any:	Comprehensive Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	Worsening leaks
	Complete Engineering Study	\$100,000	A study will review design alternatives to mitigate the problems. A necessary first step.
	Implement leak mitigation measures	\$1 million	Protect dam from worsening leaks and dam failure; but study needed as first step to review all necessary improvements.

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

Madison County HMP Update Mitigation Action Worksheet

Jurisdiction: City of Oneida

Mitigation Action	
Project ID:	Oneida 5
Project Name:	Higinbotham Brook Dam Engineering Study
Risk/Vulnerability	
Hazard of Concern:	Flood - HHPD
Description of the Problem:	High water levels along Higinbotham Brook have caused erosion of vegetation on the dam. Erosion in this location could lead to leaking or failure of the dam, which is classified as a high-hazard potential dam and could be catastrophic for the City.
Proposed Action	
Description of the Solution:	An engineering study is need to address erosion issues at the dam and stabilize the bank. The study will review design alternatives to mitigate the problems.

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

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

Level of Protection:	Low	Estimated Benefits (losses avoided):	Review of bank stabilization options that would improve structural integrity of dam during high water events once implemented.
Useful Life:	5 years		
Estimated Cost:	\$100,000		

Plan for Implementation			
Priority (High, Medium, Low):	Low	Responsible Organization:	City of Oneida DPW
Desired Timeframe for Implementation:	5 years	Potential Funding Sources:	FEMA - HHPD Program, City Budget
Estimated Time Required to Implement:	1 year	Local Planning Mechanisms to be used in Implementation, if any:	Comprehensive Plan

Three Alternatives Considered (Including No Action)			
	Action	Estimated Cost	Evaluation
Alternatives:	No Action	\$0	No change from existing conditions
	Complete Engineering Study	\$100,000	A study will review design alternatives to mitigate the problems. A necessary first step.
	Install plantings on bank	\$50,000	Not a complete solution

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