2025 Hazard Mitigation Plan Onondaga County, **New York**

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Onondaga County Water Authority Annex



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This Annex details the hazard mitigation elements specific to the Onondaga County Water Authority (OCWA), a participating jurisdiction to the 2025 Onondaga County Hazard Mitigation Plan update. This Annex is not intended to be a standalone document but supplements the information contained in **Volume 1** (Countywide Planning Elements). Therefore, all sections of **Volume 1** including the planning process, hazard identification and risk assessment, mitigation strategy (includes mitigation goals and objectives), and plan maintenance apply to and were met by OCWA. This Annex provides additional information specific to the Authority, with a focus on providing additional details on the hazard risk assessment and mitigation strategy (i.e., mitigation actions) for this special district.

1. HAZARD MITIGATION LOCAL PLANNING TEAM

The following individuals have been identified as the OCWA Local Planning Team for the 2025 Onondaga County Hazard Mitigation Plan. These individuals participated in all aspects of the planning process and developed a risk and vulnerability assessment, capability assessment, and mitigation strategy (including mitigation actions) specific to the jurisdiction.

Name	Title	Department	
Geoffrey Miller	Executive Director of Operations	Onondaga County Water District	
Kelly Caramanna	Director of Safety	Onondaga County Water District	
Jeffrey Brown	Executive Director	Onondaga County Water District	

2. DISTRICT PROFILE

The Onondaga County Water Authority (OCWA) is a public benefit corporation created by the New York State Legislature and has the responsibility of supplying and selling potable water in Onondaga, Oswego, Madison Oneida, and Cayuga counties. OCWA provides water on a retail basis to about 280,000 people, primarily in the suburban areas surrounding the City of Syracuse and another 220,000 people on a wholesale basis in the towns of Clay and Dewitt, on a daily basis, and the City of Syracuse, on an as needed basis. OCWA currently has a staff of 180 employees. The Authority's mode of operation is based on the sales of water to 106,000 residential, commercial, industrial, and municipal wholesale customers.

OCWA operates a 20 million gallons per day (MGD) treatment plant in Marcellus, which filters and chlorinates an average of 18 MGD of Otisco Lake water. Additionally, the Authority operates the Lake Ontario water treatment plant in the Town of Oswego that is capable of delivering 50 MGD to Onondaga County and currently averages 20 MGD of potable filtered water. OCWA also can purchase up to three (3) MGD from the Syracuse Water Department with current daily purchases averaging 1.2 MGD.

The OCWA distribution system is comprised of 48 pumping stations, 63 storage tanks that distribute water via 2,215 miles of water main to roughly 106,000 meter accounts and 14,150 hydrants. OCWA's infrastructure and equipment (i.e., distribution system) have a total gross value of \$457,966,806 with a net value (after depreciation) of \$306,011,560. Table 1 lists the infrastructure and equipment that comprise OCWA's distribution system.

Туре	Quantity
Miles of Main	2,215
Hydrants in Service	14,150
Metered Connections	106,000
Residential	97,642

Table 1.OCWA Infrastructure and Equipment



Туре	Quantity		
Commercial	6,811		
Industrial	48		
Wholesale	21		
Storage Tanks in Service	63		
Storage Capacity (millions of gallons)	170		
Pump Stations in Service	48		

OCWA serves east to the Madison and Oneida counties including the villages of Chittenango, Canastota, and Sylvan Beach; and the towns of Vienna, Lincoln, Lenox, Sullivan, Verona, and Annville. Manlius and Pompey are supplied from OCWA's Salt Springs pump station, with small booster stations at Academy Hill and Pompey Pines.

Connections along the Western Branch supply Van Buren, North Geddes, Radisson, West Phoenix, Lysander, and Clay. The major consumers are Westrock Solvay, LLC (i.e., Solvay Paper) at 2.2 MGD and Anheuser Busch at 1.8 MGD. Controllable connections on Central Branch supply Clay and Liverpool. The 6th North Street connection is capable of supplying Park Street and Wolf Street pump stations.

The Southern Branch supplies OCWA with City of Syracuse water (from Skaneateles Lake) to OCWA's Nob Hill connections, which serve the Nedrow, Southwood, and Jamesville areas.

2.1. Service Area

The OCWA services parts of Onondaga, Madison, Oneida, Oswego and Cayuga counties (**Figure 1**). The Authority owns approximately 708 acres of land. **Table 2** outlines the jurisdictions within Onondaga County that are served by OCWA (approximately 1,879 square miles).

Municipality (towns, cities, villages)	Water Source
City of Syracuse	Otisco Lake, Lake Ontario*
Town of Camillus	Otisco Lake
Town of Cicero	Otisco Lake, Lake Ontario
Town of Clay	Otisco Lake, Lake Ontario
Town of DeWitt	Otisco Lake, Lake Ontario, Skaneateles Lake
Town of Elbridge	Lake Ontario
Town of Geddes	Otisco Lake, Lake Ontario, Skaneateles Lake
Town of LaFayette	Skaneateles Lake
Town of Lysander	Lake Ontario
Town of Manlius	Lake Ontario, Skyridge Water District wells
Town of Marcellus	Otisco Lake
Town of Onondaga	Otisco Lake, Skaneateles Lake
Town of Otisco	Otisco Lake
Town of Pompey	Lake Ontario
Town of Salina	Otisco Lake, Lake Ontario
Town of Spafford	Otisco Lake

Table 2.Service Area Within Onondaga County



Municipality (towns, cities, villages)	Water Source
Town of Van Buren	Otisco Lake, Lake Ontario
Village of Baldwinsville	Lake Ontario*
Village of Camillus	Otisco Lake
Village of East Syracuse	Otisco Lake, Lake Ontario
Village of Fayetteville	Lake Ontario
Village of Liverpool	Otisco Lake, Lake Ontario
Village of Manlius	Lake Ontario
Village of Marcellus	Otisco Lake
Village of Minoa	Otisco Lake, Lake Ontario
Villate of North Syracuse	Otisco Lake, Lake Ontario
Village of Solvay	Otisco Lake
* Emergency Connection Only	·





2.2. Population

OCWA serves approximately 500,000 people primarily in the suburban areas surrounding the City of Syracuse.



3. GROWTH/DEVELOPMENT TRENDS

Understanding development trends can help evaluate whether the jurisdiction's vulnerability has increased, decreased, or remained the same. **Table 3** summarizes the total housing units built in Onondaga County between 2019 and 2023.¹

Туре	2019	2020	2021	2022	2023
Single-Family Units	317	280	281	236	253
Multi-Family Units	652	593	250	609	866
Total Units	969	873	531	845	1,086

Table 3.Housing Units Built (2019 - 2023)

Projections provided by the New York State's economic development agency indicate that the five (5) counties within the central New York region could have an additional 60,000 residents by 2040, which is above and beyond what the population in the region would otherwise be. Onondaga County, home to over half of the population of the five (5) counties, is in a position to add over 30,000 residents by 2040. This increase in population is mostly due to the arrival of Micron Technology, Inc. (Micron) in the County. Micron is a world leader in innovative memory solutions that transform how the world uses information. In 2022, Micron announced plans to build its newest and largest microchip manufacturing facility in central New York and access to OCWA's abundant and reliable potable water was a key factor in the decision. The projected increase in population will result in an increase in residential and commercial development throughout the County and OCWA's service area. As a result, OCWA anticipates an increase in the amount of water used by up to 45 MGD in the next five (5) years.

3.1. Changes in Priority

The overall hazard mitigation priorities have not significantly changed for OCWA since the last Plan update. However, mitigation actions from the previous Plan were updated, and a more concerted effort on achieving equitable outcomes for all communities, including underserved communities and socially vulnerable populations, has been implemented.

4. CAPABILITY ASSESSMENT

Federal regulations require hazard mitigation plans to identify goals for reducing long-term vulnerabilities to the identified hazards in the planning area (Section 201.6(c)(3)(i)). A critical step in the development of specific hazard mitigation actions and projects is assessing existing authorities, policies, programs, and resources and capabilities to use or modify local tools to reduce losses and vulnerability from profiled hazards.

A capability assessment was conducted for OCWA's authorities, policies, programs, and resources. Goals and mitigation actions were developed using input from this assessment. Information regarding the Authority's implementation of and continued participation in the National Flood Insurance Program (NFIP) can be found in Section 5 of this Annex.

The Local Planning Team assessed the OCWA's capabilities that can contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include the following categories:

• Planning and Regulatory Capabilities

¹ Data provided by the Onondaga County Department of Planning based on Real Property Data (2024).



- Administrative and Technical Capabilities
- Fiscal Capabilities
- Education and Outreach Capabilities

Additionally, ways to expand on and improve these existing policies and programs to integrate hazard mitigation into the day-to-day activities and programs of the Authority were considered.

4.1. Planning and Regulatory Capabilities

Table 4 includes local ordinances, policies, and laws to manage growth and development (e.g., land use plans, capital improvement plans, transportation plans, emergency preparedness and response plans, building codes, and zoning ordinances).

Capability Category	Yes/No	Authority (local, county, state, federal)	Responsible Department/ Agency	Code Citation and Comments (e.g., Code Chapter, name of plan, explanation of authority, etc.)
		Planning Ca	pability	
Comprehensive Plan	No	N/A	N/A	N/A
Capital Improvements Plan	Yes	Authority	OCWA	Capital Improvement Program
Floodplain Management / Basin Plan	No	N/A	N/A	N/A
Stormwater Management Plan	No	N/A	N/A	N/A
Open Space Plan	No	N/A	N/A	N/A
Stream Corridor Management Plan	No	N/A	N/A	N/A
Watershed Management or Protection Plan	Yes	Authority	OCWA	Updated in April 2022
Economic Development Plan	No	N/A	N/A	N/A
Comprehensive Emergency Management Plan	Yes	Authority	OCWA	Updated in December 2024
Emergency Operation Plan	Yes	Authority	OCWA	Updated in December 2024
Evacuation Plan	No	N/A	N/A	N/A
Post-Disaster Recovery Plan	Yes	Authority	OCWA	Emergency Response Plan (December 2024)
Transportation Plan	No	N/A	N/A	N/A
Strategic Recovery Planning Report	No	N/A	N/A	N/A

Table 4.Planning and Regulatory Tools



Capability Category	Yes/No	Authority (local, county, state, federal)	Responsible Department/ Agency	Code Citation and Comments (e.g., Code Chapter, name of plan, explanation of authority, etc.)
Climate Adaptation Plan	No	N/A	N/A	N/A
Resilience Plan	Yes	Authority	OCWA	Emergency Response Plan (December 2024)
		Regulatory Ca	apability	
Building Code	No	State, Local	N/A	Chapter 16 of the New York State Building Code Regulated by each municipality
Zoning Ordinance	No	Local	N/A	Regulated by each municipality
Subdivision Ordinance	No	Local	N/A	Regulated by each municipality
NFIP Flood Damage Prevention Ordinance	No	Local	N/A	Regulated by each municipality
NFIP: Cumulative Substantial Damages	No	Local	N/A	Regulated by each municipality
NFIP: Freeboard	No	Local	N/A	Regulated by each municipality
Growth Management Ordinances	No	N/A	N/A	N/A
Site Plan Review Requirements	No	N/A	N/A	N/A
Stormwater Management Ordinance	No	N/A	N/A	N/A
Municipal Separate Storm Sewer System (MS4)	No	N/A	N/A	N/A
Natural Hazard Ordinance	No	N/A	N/A	N/A
Post-Disaster Recovery Ordinance	No	N/A	N/A	N/A
Real Estate Disclosure Requirement	No	N/A	N/A	N/A
Other (Special Purpose Ordinances [i.e., sensitive areas, steep slope])	No	N/A	N/A	N/A

4.2. Administrative and Technical Capabilities

The administrative and technical capabilities, listed in **Table 5**, include Authority (i.e., public and private) staff and their skills and tools, which can be used for mitigation planning and implementation. This capability includes engineers, planners, emergency managers, Geographic Information System (GIS) analysts, building inspectors, grant writers, and floodplain managers. Small communities and special districts (e.g., OCWA) may rely on other government entities, such as counties or municipalities, for resources.



Table 5.

Administrative and Technical Capabilities

Capability	Yes/No	Position/Department/Agency				
Administrative Capability						
Planning Board	No	N/A				
Mitigation Planning Committee	No	N/A				
Environmental Board/Commission	No	N/A				
Open Space Board/Committee	No	N/A				
Economic Development Commission/Committee	No	N/A				
Maintenance programs to reduce risk	Yes	OCWA Operations Division				
Mutual aid agreements	Yes	New York Water/Wastewater Agency Response Network (NYWARN)				
Technic	al/Staffing Caj	pability				
Planner(s) or engineer(s) with knowledge of land development and land management practices	No	N/A				
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Engineering Staff				
Planners or engineers with an understanding of natural hazards	Yes	Engineering Staff				
NFIP Floodplain Administrator	No	N/A				
Surveyor(s)	Yes	Engineering Staff				
Personnel skilled or trained in GIS applications	Yes	GIS Analyst, Information Technology Division				
Scientist familiar with natural hazards	Yes	Water Quality Staff				
Warning systems/services	Yes	Onondaga County Emergency Communications (911)				
Emergency Manager	Yes	Director of Safety & Training				
Grant writer(s)	Yes	Administrative Staff				
Staff with expertise or training in benefit/cost analysis	Yes	Accounting Staff				
Professionals trained in conducting damage assessments	Yes	Engineering Staff Operations Staff				

4.3. Fiscal Capabilities

Table 6 contains a list of fiscal capabilities available to OCWA that may be used to implement mitigation activities to reduce risk and enhance resiliency. This capability includes available funding sources from local budgets, state and federal grants, potential cost-sharing arrangements with private entities, existing insurance policies, and the ability to generate additional revenue through fees and bonds related to mitigation.

Table 6.Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use
Community Development Block Grants (CDBG, CDBG-DR)	No



Financial Resources	Accessible or Eligible to Use
Federal Hazard Mitigation Assistance Program (i.e., Hazard Mitigation Grant Program (HMGP), HMGP Post Fire, Building Resilient Infrastructure and Communities (BRIC), Flood Mitigation Assistance (FMA) Program)	Yes
Capital Improvements Project Funding	Yes
Authority to Levy Taxes for specific purposes	No
User fees for water, sewer, gas or electric service	Yes
Impact fees for homebuyers or developers of new development/homes	No
Stormwater Utility Fee	No
Incur debt through general obligation bonds	Yes
Incur debt through special tax bonds	No
Incur debt through private activity bonds	No
Withhold public expenditures in hazard-prone areas	No
Other federal or state funding programs	Yes
Open Space Acquisition funding programs	No

4.4. Education and Outreach Capabilities

Table 7 lists the OCWA's education and public outreach capabilities that can be used to inform residents about potential hazards, educate on mitigation strategies, and encourage proactive actions to reduce the service area's impacts to disasters. These capabilities include fire safety programs, hazard awareness campaigns, public information, and communications offices.

Resource	Yes/No	Position/Department/Agency
Public Information Officer	Yes	Director of Public Affairs, OCWA
Personnel skilled or trained in website development	Yes	Director of Public Affairs, OCWA
Hazard mitigation information available on the jurisdiction's website	Yes	Director of Public Affairs, OCWA
Utilize social media for hazard mitigation education	Yes	Director of Public Affairs, OCWA Facebook: facebook.com/OCWACNYsWaterAuthority/
Citizen boards or commissions that address issues related to hazard mitigation	No	N/A
Other programs already in place that could be used to communicate hazard-related information	Yes	Onsolve Alert System
An established warning system for hazard events	Yes	Onsolve Alert System

Table 7.Education and Outreach Resources

4.5. Community Classifications

The community classification relates to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as a gauge of the community's



capabilities in all phases of emergency management (i.e., preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. **Table 8** summarizes classifications for community programs available to OCWA.

Program	Yes/No	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	N/A	N/A
Building Code Effectiveness Grading Schedule (BCEGS)	No	N/A	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	No	N/A	N/A
New York State Department of Environmental Conservation Climate Smart Community	No	N/A	N/A
Storm Ready Certification	No	N/A	N/A
Firewise Communities classification	No	N/A	N/A
Natural disaster/safety programs in/for schools	No	N/A	N/A
Organizations with mitigation focus (advocacy group, non-government)	No	N/A	N/A
Public private partnership initiatives addressing disaster-related issues	No	N/A	N/A

Table 8.Community Classifications

4.6. Self-Assessment of Capability

The community classification relates to the community's ability to provide effective services to lessen its vulnerability to the hazards identified. These classifications can be viewed as an indicator of the community's capabilities in all phases of emergency management (i.e., preparedness, response, recovery and mitigation) and are used as an underwriting parameter for determining the costs of various forms of insurance. **Table 9** summarizes classifications for community programs available to OCWA.

Table 9.	Self-Assessment Capability for the Municipality
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	Degree of Hazard Mitigation Capability		
Capability Area	<i>Limited</i> (If limited, what are your obstacles?)	Moderate	High
Planning and Regulatory Capabilities		Х	
Administrative and Technical Capabilities			X
Fiscal Capabilities		Х	
Education and Outreach Capabilities		X	
Authority Political Capabilities	N/A	N/A	N/A
Authority Resiliency Capabilities		Х	
Capability to integrate mitigation into municipal processes and activities			X



4.7. Needs to Expand/Improve Capabilities

Based on the capability self-assessment in Section 4.6, OCWA identified existing authorities, policies, programs, funding, and/or resources that need to be expanded and/or improved in order to support the implementation of the hazard mitigation initiatives identified in this Plan (e.g., mitigation actions).

- In order to increase OCWA's capability to implement hazard mitigation, the Authority needs to expand its staffing with more engineers and maintenance personnel.
- Expand/improve its grant writing capabilities by potentially hiring more grant writers in order to increase its capabilities to apply for hazard mitigation grant funding that will help fund priority projects such as generators, stream bank armoring, and pipeline construction and relocation.
- Improve the allocation of capital funding to prioritize and support the implementation of hazard mitigation projects.

5. NATIONAL FLOOD INSURANCE PROGRAM

As a special district, the OCWA is not eligible to participate in FEMA's National Flood Insurance Program (NFIP). Further information on Onondaga County's NFIP and Community Rating System (CRS) participation is available on **Volume 1** of this Plan.

6. HAZARD MITIGATION PLAN INTEGRATION

In order for a community to successfully reduce long term risk, hazard mitigation must be integrated into day-today planning mechanisms and initiatives. Plan integration is the process by which communities critically assess the existing planning framework and align efforts with the goal of reducing long term risks and building a more resilient community. It involves a two (2) way exchange of information and incorporation of ideas and concepts between hazard mitigation plans and other community plans. In particular, plan integration involves the incorporation of hazard mitigation principles and actions into other plans, and planning mechanisms into hazard mitigation plans. Plan integration involves community plans, policies, codes, and programs that guide development, roles, and responsibilities in implementing these capabilities. Additionally, plan integration is achieved through the involvement of key staff and community officials in collaborative hazard mitigation planning.

6.1. Existing Plan Integration

A hazard mitigation plan must explain how the jurisdiction incorporated the previous Plan update over the last five (5) years to demonstrate progress in local mitigation efforts. In the performance period since the adoption of the previous Hazard Mitigation Plan, OCWA made progress on integrating components of the hazard mitigation strategy (e.g., goals, objectives, and actions) into planning initiatives and mechanisms. **Table 10** highlights the planning mechanisms/initiatives where the previous Plan was integrated and what information was integrated.

Planning Initiative	Current Integration Description
Capital Improvement Program	The Capital Improvement Program, updated annually, identifies and prioritizes improvements to OCWA distribution system that mitigate drought, flood, severe weather, and winter weather. Mitigation actions identified in the Hazard Mitigation Plan will be incorporated into the Capital Improvement Program, specifically for local cost savings.

Table 10.Current Plan Integration



6.2. Potential Future Integration

A hazard mitigation plan must explain how the jurisdiction intends to incorporate this Plan update into planning mechanisms over the next five (5) years. The capability assessment presented in Section 4 of this Annex identifies codes, plans, and programs that provide opportunities for integration. **Table 11** outlines planning mechanisms/initiatives that do not currently integrate goals and recommendations of this Plan but provide opportunities to do so in the future.

Planning Initiative	Potential Integration Description
Emergency Plan	OCWA's emergency plan is reviewed and updated annually. Natural hazard risks outlined in this Hazard Mitigation Plan, including blue-green algae hazards (i.e., harmful algal bloom), will be included in the annual review.
Capital Improvement Plan	OCWA will ensure consistency between this Hazard Mitigation Plan and future updates of the Capital Improvement Plan. The Hazard Mitigation Plan may identify new possible funding sources for capital improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
Public Outreach	OCWA could develop outreach and education programs and include information on natural hazards and hazard mitigation on the Authority's website.

OCWA's Local Planning Team will identify all relevant planning initiatives that are scheduled to be updated in the next year and during the annual update process of the Hazard Mitigation Plan. Additionally, opportunities to integrate key elements of the Hazard Mitigation Plan, specifically any relevant strategies, into the planning initiatives will be identified by the Local Planning Team. Mitigation actions were identified to promote plan integration in future revisions of this Plan.

7. SIGNIFICANT HAZARD PAST EVENTS

A complete risk assessment, including past incidents, for each identified hazard of concern can be found in **Volume 1** of this Plan. A summary of past events is provided under each hazard profiles and includes a chronology of events that have affected the County and its municipalities. **Table 12** provides information on significant hazard events that uniquely impacted OCWA.

Date	Event Type (Disaster Declaration, if applicable)	Description
September 2017	Harmful Algal Bloom	A harmful algal bloom was identified in Skaneateles Lake resulting in the detection of microcystin, a form of cyanotoxin, in raw and treated water samples collected from the Syracuse Water Department lake intakes.
February 2015	Winter Weather	An Arctic air mass moved into the Northeast over Valentine's Day weekend, bringing the coldest temperatures of the 2015 winter. These extreme temperatures led to a significant number of customers experiencing frozen pipes, along with multiple water main breaks throughout the jurisdiction.

Table 12.	Hazard	Event	History
	IIULUIU	LICHE	motory

8. HAZARD VULNERABILITY AND IMPACT ASSESSMENT

Exposure and vulnerability to certain hazards affect the entire County and others are geographically defined. Although the entire County may be vulnerable to these hazards, their impacts may vary based on existing



community conditions (e.g., underserved, or functional access needs populations may be more susceptible based on certain conditions, vulnerabilities, or needs).

Table 13 outlines the *unique vulnerabilities and impacts* for OCWA and only addresses the hazards that are relevant and unique to the jurisdiction. A complete risk assessment for each identified hazard of concern is in **Volume 1** of this Plan. Hazard mapping can be found in **Appendix A** of this Annex.

Hazard	Vulnerabilities and Impacts
Drought	Otisco Lake is one of OCWA's main water sources. The Lake is extremely vulnerable to drought events because water levels can decrease due to lack of rainfall and the water quality can be impacted.
Earthquake	The Local Planning Team determined that OCWA does not have unique vulnerabilities and impacts to earthquake events; rather, the jurisdiction's vulnerability and impacts are consistent with those experienced throughout the County.
Heat Wave/Extreme Heat	The Local Planning Team determined that OCWA does not have unique vulnerabilities and impacts to heat wave/extreme heat events; rather, the jurisdiction's vulnerability and impacts are consistent with those experienced throughout the County.
Flood (riverine, flash/urban, ice jam, dam and levee failure)	The Otisco Water Treatment Plant dam is inspected regularly, per State and Federal requirements; however, the dam can be subject to possible failure during a heavy rainfall and/or severe weather event.
Geological Hazards (landslides, land subsidence, mudboils)	The Local Planning Team determined that OCWA does not have unique vulnerabilities and impacts to geological hazards; rather, the jurisdiction's vulnerability and impacts are consistent with those experienced throughout the County.
Harmful Algal Bloom	Skaneateles Lake is the primary water source for the City of Syracuse and Otisco Lake is the primary water source for a number of towns and villages within the County. Harmful algal bloom events in these water sources would impact OCWA's ability to supply water to residents within the service area.
Invasive Species and Infestation (Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)	Hemlock woolly adelgid could significantly impact the water quality in Otisco Lake by potentially killing a significant amount of hemlock trees in the watershed which play an important role in the Lake's water quality. Hemlocks are typically found growing next to streams, providing shade that cools the water and keeps aquatic organisms happy. Additionally, the shade provided by keeps soil from drying out and creates a cool habitat for plants and animals. Additionally, their branches also protect areas from snow and wind in the winter and the trees serve as a food source for many animals.
Severe Weather (severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)	Severe weather could impact the water quality of Skaneateles Lake.
Winter Weather (blizzards, heavy snow, ice storms, cold wave/extreme cold, nor 'easter)	Power outages during winter weather events that occur beyond the generator fuel capacity or fuel delivery can impact Lake Ontario Water Treatment Plant, Otisco Water Treatment Plant, Park Street Pump Station, Wolf Street Pump Station, and Lakeland Pump Station. In the event these facilities are not operational, OCWA's ability to deliver water will be compromised.
Wildfire (wildfire smoke)	The Local Planning Team determined that OCWA does not have unique vulnerabilities and impacts to wildfire; rather, the jurisdiction's vulnerability and impacts are consistent with those experienced throughout the County

Table 13.Hazard Vulnerability and Impact Assessment

OCWA evaluated whether vulnerability in hazard prone areas had increased, decreased, or remained the same for each natural hazard identified in this Hazard Mitigation Plan. Climate change, changes in population, infrastructure expansion, and economic shifts that can affect vulnerability were considered. For example, if planned development is in an identified hazard areas or is not built to the updated building codes, it may increase the community's vulnerability to future hazards and disasters. On the other hand, if development occurred with mitigation practices in place, the vulnerability may have remained the same or decreased. Additionally, shifting demographics (e.g., underserved population) were taken into consideration.

Table 14 outlines if climate change has increased or decreased the Authority's vulnerability (i.e., exposure) and impact to each natural hazard over the past five (5) years, and the effect of climate change in the future probability of occurrence and impacts from each natural hazard.

Hazard	Vulnerability and Impact		
Current Vulnerability and Impact			
Drought	Increased		
Earthquake	Remained the Same		
Heat Wave/Extreme Heat	Increased		
Flood (riverine, flash/urban, ice jam, dam and levee failure)	Increased		
Geological Hazards (landslides, land subsidence, mudboils)	Increased		
Harmful Algal Bloom	Increased		
Invasive Species and Infestation (Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)	Increased		
Severe Weather (severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)	Increased		
Winter Weather (blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter)	Increased		
Wildfire (wildfire smoke)	Remained the Same		
Future Vulnerability and Impact			
Drought	Increase		
Earthquake	No Change Anticipated		
Heat Wave/Extreme Heat	Increase		
Flood (riverine, flash/urban, ice jam, dam and levee failure)	Increase		
Geological Hazards (landslides, land subsidence, mudboils)	Increase		
Harmful Algal Bloom	Increase		
Invasive Species and Infestation (Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)	Increase		
Severe Weather (severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)	Increase		
Winter Weather (blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter)	Increase		
Wildfire (wildfire smoke)	No Change Anticipated		

Table 14. Climate Change Current and Future Vulnerability and Impact

Table 15 outlines whether changes in population within the Authority's service area over the past five (5) years have increased or decreased the vulnerability (i.e., exposure) and impact to these natural hazards, and the anticipated



effects changes in population may have on the future probability of occurrence and impacts from these natural hazards.

Table 15.	Changes in Population Current and Future Vulnerability and Impact
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Hazard	Vulnerability and Impact							
Current Vulnerability and Impact								
Drought	Remained the Same							
Earthquake	Remained the Same							
Heat Wave/Extreme Heat	Remained the Same							
Flood (riverine, flash/urban, ice jam, dam and levee failure)	Remained the Same							
Geological Hazards (landslides, land subsidence, mudboils)	Remained the Same							
Harmful Algal Bloom	Remained the Same							
Invasive Species and Infestation (Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)	Remained the Same							
Severe Weather (severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)	Remained the Same							
Winter Weather (blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter)	Remained the Same							
Wildfire (wildfire smoke)	Remained the Same							
Future Vulneral	bility and Impact							
Drought	Increase							
Earthquake	No Change Anticipated							
Heat Wave/Extreme Heat	Increase							
Flood (riverine, flash/urban, ice jam, dam and levee failure)	No Change Anticipated							
Geological Hazards (landslides, land subsidence, mudboils)	No Change Anticipated							
Harmful Algal Bloom	No Change Anticipated							
Invasive Species and Infestation (Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)	No Change Anticipated							
Severe Weather (severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)	No Change Anticipated							
Winter Weather (blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter)	No Change Anticipated							
Wildfire (wildfire smoke)	No Change Anticipated							

Table 16 outlines whether development over the past five (5) years has increased or decreased the Authority's service area vulnerability (i.e., exposure) and impact to these natural hazards, and the anticipated effects changes in development may have on the future probability of occurrence and impacts from these natural hazards.

Table 16.Changes in Development Current and Future Vulnerability and Impact

Hazard	Vulnerability and Impact					
Current Vulnerability and Impact						
Drought	Remained the Same					
Earthquake	Remained the Same					



Hagand	Vulnerability and Impact			
паzаги	vullerability and impact			
Heat Wave/Extreme Heat	Remained the Same			
Flood (riverine, flash/urban, ice jam, dam and levee failure)	Remained the Same			
Geological Hazards (landslides, land subsidence, mudboils)	Remained the same			
Harmful Algal Bloom	Remained the Same			
Invasive Species and Infestation (Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)	Remained the Same			
Severe Weather (severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)	Remained the Same			
Winter Weather (blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter)	Remained the Same			
Wildfire (wildfire smoke)	Remained the Same			
Future Vulneral	bility and Impact			
Drought	Increase			
Earthquake	No Change Anticipated			
Heat Wave/Extreme Heat	Increase			
Flood (riverine, flash/urban, ice jam, dam and levee failure)	No Change Anticipated			
Geological Hazards (landslides, land subsidence, mudboils)	No Change Anticipated			
Harmful Algal Bloom	No Change Anticipated			
Invasive Species and Infestation (Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)	No Change Anticipated			
Severe Weather (severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)	No Change Anticipated			
Winter Weather (blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter)	No Change Anticipated			
Wildfire (wildfire smoke)	No Change Anticipated			

8.1. Future Major Assets

Community assets should include anything that is important to the character and function of a community. Assets include people (i.e., underserved population); structures (i.e., new and existing buildings); community lifelines and other critical facilities; natural, historic, and cultural resources; and the economy and other activities that have value to the community. Although all assets may be affected by the hazards identified in this Hazard Mitigation Plan, the jurisdiction identified future major assets that may be more vulnerable and impacted by these hazards.

- Micron has become a significant driver for improvements and expansions to the OCWA water distribution infrastructure. In the next five (5) years, residential and commercial development is expected to increase, which potentially exposes more people to the natural hazards identified in this Plan, but in particular to drought, flood, heat wave/extreme heat, and winter weather. Furthermore, the expected population growth will require an expansion of the Authority's Lake Ontario water system infrastructure potentially exposing more critical facilities to drought, flood, harmful algal blooms, invasive species and infestation, severe weather, and winter weather.
- Any new assets (e.g., new construction in hazard prone areas) will be constructed to adhere to the latest building codes and standards, and mitigation to protect them from identified and anticipated hazards, especially those that are expected to increase due to climate change.



9. CRITICAL FACILITIES FLOOD RISK

New York State Department of Environmental Conservation (NYSDEC) Title 6, Chapter V, Subchapter A, Part 502 sets forth local floodplain management criteria for State projects located within flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a Special Flood Hazard Area (SFHA) unless built according to certain mitigation specifications, including being raised two (2) feet above the Base Flood Elevation (BFE).² While all vulnerabilities should be assessed and documented, the State places a high priority on exposure to flooding.

Jurisdictions must identify all critical facilities, assess their vulnerabilities, and evaluate and ensure they are protected to a 0.2% chance (500-year) flood event. Critical facilities that are located in an SFHA and/or have been previously flooded, must be protected against a repeat of that flood or to the 0.2% chance flood event, which ever provides the greater protection. The Plan must document those critical facilities are protected to a 0.2% flood event, or previous worst case flood event. For those that do not meet this level of protection, the Plan must include a mitigation action to meet or go beyond this criterion or explain why it is not feasible to do so.³

Table 17 identifies critical facilities in the community located in the 100-year and 500-year floodplain.

Name		Expo	osure	Potential 100-Year F	Addressed			
	Туре	100- Year	500- Year	% Structure Damage	% Content Damage	Proposed Action		
None identified.								

Table 17.Potential Flood Losses to Critical Facilities

10. HAZARD RISK RANKING

Table 18 presents the local hazard ranking for OCWA of all hazards of concern listed in **Volume 1** of this Plan. This ranking summarizes how hazards vary for this jurisdiction. As thoroughly described in **Volume 1** of this Plan, the ranking process involves an assessment of the likelihood of occurrence for each hazard, along with its potential impacts on people, property, and the economy. For further details on how the probability, extent, vulnerability, and impact factors in **Table 18** were calculated, please refer to Section 4.3 in **Volume 1** of this Plan.

It is important to note that the sub hazards for severe weather (i.e., strong winds/damaging winds, severe thunderstorms, tropical storm/hurricane, hail, and tornado), geological hazards (i.e., landslide, land subsidence, and mudboils), flood (i.e., riverine/creek flooding and ice jam, and urban/flash flooding), and winter weather (i.e., blizzards, lake effect snow, nor'easter, and ice storm, and cold wave/extreme cold) were individually ranked in the hazard risk ranking; however, severe weather, geological hazards, flood, and winter weather are each considered as the main hazard throughout this Annex and **Volume 1**.

² New York State Department of Environmental Conservation. (n.d.). Chapter V – Resource Management Services. Retrieved from <u>https://dec.ny.gov/regulatory/regulato</u>

³ New York State Division of Homeland Security and Emergency Services. (2022). 2022 New York State Hazard Mitigation Planning Standards. Retrieved from <u>https://www.dhses.ny.gov/system/files/documents/2023/11/2022-nys-mitigation-planning-standards-final.pdf</u>



Hazard Event	Probability Factor	Sum of Weighted <u>Extent</u> Factors	Sum of Weighted <u>Vulnerability</u> Factors	Sum of Weighted <u>Impact</u> Factors	Consequence Score	Total Risk Score (Probability x Consequence)
Flood (Urban/Flash Flood)	3	12	11	29	52	73
Winter Weather (Blizzards, Lake Effect Snow, Nor'easter, Ice Storm)	3	12	14	21	47	67
Severe Thunderstorm (Severe Weather)	3	12	16	15	43	62
Flood (Riverine/Creek, Ice Jam)	2	15	11	29	55	54
Drought	2	15	12	28	55	54
Strong Winds/ Damaging Winds (Severe Weather)	3	12	6	16	34	51
Harmful Algal Bloom	2	12	15	24	51	51
Cold Wave/Extreme Cold (Winter Weather)	2	12	14	21	47	48
Heat Wave/Extreme Heat	2	9	11	19	39	41
Tropical Storm/Hurricane (Severe Weather)	1	9	16	24	49	27
Dam and Levee Failure (Flood)	1	12	6	27	45	25
Invasive Species and Infestation	1	12	9	21	42	24
Hail (Severe Weather)	1	6	16	14	36	21
Earthquake	1	6	16	12	34	20
Tornado (Severe Weather)	1	6	6	22	34	20
Mudboils (Geological Hazards)	1	6	6	12	24	15
Landslide (Geological Hazards)	1	3	6	12	21	13
Land Subsidence (Geological Hazards)	1	3	6	12	21	13

Table 18.Onondaga County Water Authority Hazard Risk Ranking



Hazard Event	Probability Factor	Sum of Weighted <u>Extent</u> Factors	Sum of Weighted <u>Vulnerability</u> Factors	Sum of Weighted <u>Impact</u> Factors	Consequence Score	Total Risk Score (Probability x Consequence)			
Wildfire (Wildfire Smoke) 1	3	6	11	20	13			
Consequence: Sum of <u>all</u> weighted factors. Impact: Sum of the weighted <u>Impact factors.</u> Extent: Sum of the weighted <u>Extent factors.</u> Total Risk Score* = Probability x Consequence Vulnerability: Sum of the weighted <u>Vulnerability factors.</u> * Normalized to 100									
		Tota	al Risk Score Lo	egend					
Classification	Probability Factor	Extent	Vulnerability	Impact	Consequence Score	Total Risk Score			
Low (L)	1	0-6	0-6	0-12	0 - 24	0 - 24			
Medium (M)	2	7 – 12	7 – 12	13 - 26	25 - 50	25 - 54			
High (H)	3	13 – 18	13 - 18	27 – 39	51 – 75	55 and above			
The legend —specifically the assignment of low, medium, and high—provides an additional means to qualitatively assess the probability factor, sum of weighted factors, and the									

The *legend*—specifically the assignment of low, medium, and high—provides an additional means to qualitatively assess the probability factor, sum of weighted factors, and the total risk scores for each hazard. The **Consequence Score** represents the sum of the Extent, Vulnerability, and Impact Factors. The **Total Risk Score** is a measure of Probability and Consequence.



11. MITIGATION ACTIONS

This section includes the mitigation actions that were developed to address identified risks and vulnerabilities to hazards identified in this Plan. This Plan serves only to recommend mitigation measures based on the potential for risk reduction and available funding. Implementation of mitigation actions is dependent on risk reduction priorities, feasibility, and available funding. It is also dependent on the cooperation and support of the jurisdiction and/or department responsible for each action item. Additionally, all mitigation actions identified in the 2019 update or before were updated accordingly. Any new mitigation actions are listed as *New* (under Project Status).

OCWA agreed upon **10** mitigation actions that apply to the jurisdiction's properties where they have jurisdictional responsibility and authority. A summary of OCWA's mitigation actions status is listed in **Table 19**.

Status		Mitigation Action Total			
Continuous		4			
In Progress/Not Yet Completed		1			
No Progress/Not Yet Started		3			
New		2			
	TOTAL	10			
Complete		0			
Discontinued	0				
Mitigation Actions per Hazard					
Drought	4	Harmful Algal Bloom	7		
Earthquake	5	Invasive Species and Infestation (Emerald Ash Borer, Hemlock Woolly Adelgid, True Armyworm, Common Reed (Phragmites), Eurasian Watermilfoil, Water Chestnut, Tick-Borne Diseases, Mosquito-Borne Diseases)	3		
Heat Wave/Extreme Heat	3	Severe Weather (severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm, nor 'easter)	6		
Flood		Winter Weather	6		
(riverine, flash/urban, ice jam, dam and levee failure)	6	(blizzards, heavy snow, ice storms, cold wave/extreme cold)	0		

Table 19	Onondaga County Water Authority Mitigation Action Summary
Table 17.	Ononuaga county water Authority Mitigation Action Summary

A detailed explanation of the Mitigation Strategy can be found in Section 5 of Volume 1.



Mitigation Action	Actively sup and defined i	Actively support and participate in the implementation, monitoring, maintenance, and updating of this Hazard Mitigation Plan, as outlined, and defined in Volume 1.								
Action Number	OCV	VA-1	Goal(s) Addressed	Goal(s) Addressed 1, 2, 3, 4, 5, 6 Prioritization Score 15/15						
Year Added to Plan	20	13	Timeline (estimated)	Timeline (estimated)Ongoing		Implementation Priority	High			
Hazard(s) Mitigated Drought, Earthquake, Heat Wave/Extreme Heat, Flood, Geological Hazards, Harmful Algal Blo Species and Infestation, Severe Weather, Winter Weather, Wildfire					ful Algal Bloom, Invasive ldfire					
Projec		Continuous	If Dis	<i>continued</i> , provide reason. N/A						
Ben (Loss A	nefits 4voided)		High							
Lead Agency / Organization Onondaga		Onondaga	County Water Authority		Orting Agency / Organization (If applicable)N/A		'A			
Additional Partici Jurisdictions (If ap	i pating plicable)				N/A					
Estimated Co	ost	Low	Potential Fund Source	ling	General Fund (Staff Time)					
Critical Facil it (Critical Facility located in 19	ity % floodplain?)	No	Additional Details (optional)							



Mitigation Action	Develop, enh	Develop, enhance, and implement existing OCWA emergency plans.								
Action Number	OCW	VA-2	Go	Goal(s) Addressed1, 6Prioritization Score15/15						
Year Added to Plan	20	13	Timeline (estimated)Ongoing		Implementation Priority	High				
Hazard(s) Mitigated Drought, Earthquake, Heat Specie					at Wave/Extreme Heat, Flood, Geological Hazards, Harmful Algal Bloom, Invasive cies and Infestation, Severe Weather, Winter Weather, Wildfire					
Project Status				Continuous	If Dis	<i>iscontinued</i> , provide reason. N/A				
Ben (Loss A	nefits 1voided)		High							
Lead Agency / Orga	inization	Onondaga	County Water Authority		Supporting Agency / Organization (If applicable)		N/A			
Additional Partici Jurisdictions (If ap	pating plicable)					N/A				
Estimated Co	ost	Low		Potential Fund Source	ing	General Fund (Staff Time)				
Critical Facil it (Critical Facility located in 19	i ty 6 floodplain?)	No		Additional Details (optional)						



Mitigation Action	Develop, enh	Develop, enhance, and maintain mutual aid agreements with surrounding municipalities and counties.								
Action Number	OCW	VA-3	Goal(s) Addressed	Goal(s) Addressed1, 5, 6Prioritization Score15/15						
Year Added to Plan	20	13	Timeline (estimated)		Ongoing	Implementation Priority	High			
Hazard(s)	Drought, Earthquake, H Spe	Drought, Earthquake, Heat Wave/Extreme Heat, Flood, Geological Hazards, Harmful Algal Bloom, Invasive Species and Infestation, Severe Weather, Winter Weather, Wildfire								
Project Status Continuous				If Di.	<i>scontinued</i> , provide reason.	<i>continued</i> , provide reason. N/A				
Ben (Loss A	nefits 4voided)			High						
Lead Agency / Organization Onondaga		Onondaga	County Water Authority	Supp C	Dorting Agency / Drganization (If applicable)	Sector N/A Image: regarization N/A				
Additional Partici Jurisdictions (If ap	i pating plicable)				N/A					
Estimated Co	ost	Low	Potential Fund Source	ling	General Fund (Staff Time)					
Critical Facil it (Critical Facility located in 19	ity %floodplain?)	No	Additional Dec (optional)	Additional Details (optional)						



Mitigation Action	Expand the V nutrients that to overall wa treatment pla	Vatershed Mon could make th ter quality duri nt operations.	atershed Monitoring Program to consider the more frequent and severe storms. Accordingly, OCWA intends to monitor other could make their way into the Lake from further away than the contiguous properties on the Lake shore. OCWA's concern ties or quality during short term events and the long term impact on overall water quality, and the impact on OCWA water t operations.							
Action Number	OCV	VA-4	Goal(s) Addressed	Goal(s) Addressed1, 2, 3Prioritization Score14/15						
Year Added to Plan	2013		Timeline (estimated)		Ongoing	Implementation Priority	High			
Hazard(s)		Flood, Severe Weather, Winter Weather								
Projec	ect Status		Continuous If <i>Discontinued</i> , provide reason. N/A				'A			
Ben (Loss A	nefits 4voided)				Me	dium				
Lead Agency / Organization Onondaga			County Water Authority Supporting Agency / Organization (If applicable)			N/A				
Additional Partici Jurisdictions (If ap	i pating plicable)				N/A					
Estimated Co	ost	Medium	Potential Fund Source	ing	General Operations Fund (Staff Time)					
Critical Facil it (Critical Facility located in 19	ity % floodplain?)	No	Additional Details (optional)							



Mitigation Action	Install a 54-inch parallel water supply line (24 miles) from Lake Ontario to the City of Syracuse and ensure it is built to seismic standards.									
Action Number	OCWA-5		VA-5 Goal(s) Addressed			1, 3, 6	Prioritization Score	9/15		
Year Added to Plan	2013			Timeline (estimated)		Over 5 Years	Implementation Priority Medium			
Hazard(s) Mitigated			Earthquake, Harmful Algal Bloom							
Project Status			No	Progress/Not Yet Started	If Dis	<i>scontinued</i> , provide reason.	N/A			
Benefits (Loss Avoided)			High							
Lead Agency / Organization Onondaga		County Water Authority Supporting A (If application)			oorting Agency / Organization (If applicable)	N/A				
Additional Partici Jurisdictions (If ap	pating		N/A							
Estimated Co	ost	High Poter		Potential Fund Source	ing General Fund (Staff Time), HMGP, New Yor		ff Time), HMGP, New York S	State Water Quality Funds		
Critical Facil (Critical Facility located in 19	i ty 6 floodplain?)	No		Additional Details (optional) The existing water supply line is now more than 50 years old a vulnerable to damage, including seismic impacts, and has inad-			50 years old and is , and has inadequate			



Mitigation Action	Southwestern Branch Pipeline Project: Install approximately seven (7) miles of a 48-inch water supply main to provide an alternate water supply for the City of Syracuse. Ensure it is built to seismic standards.								
Action Number	OCWA-6		Goal(s) Addressed		1, 3, 6	Prioritization Score	9/15		
Year Added to Plan	2013		Timeline (estimated)		Over 5 Years	Implementation Priority Medium			
Hazard(s) Mitigated			Earthquake, Harmful Algal Bloom						
Project Status		No Progress/Not Yet Started	If Di.	<i>scontinued</i> , provide reason.	<i>nued</i> , provide N/A				
Benefits (Loss Avoided)		High							
Lead Agency / Organization Onondaga		County Water Authority	Supp C	Oorting Agency / Organization (If applicable)	N/A				
Additional Partici Jurisdictions (If ap	pating plicable)			N/A					
Estimated Co	ost	High	Potential Funding Source General Fun		General Fund (Sta	General Fund (Staff Time), HMGP, New York State Water Quality Funds			
Critical Facil (Critical Facility located in 19	i ty % floodplain?)	No	Additional Details (optional) Water supply main needs to be built to seismic standards.			tandards.			



Mitigation Action	Install permanent generators (backup power) at OCWA critical facilities for emergency power outages to improve reliability and resiliency of electric service. Critical facilities requiring backup power include Park Street Pump Station, Wolf Street Pump Station, Lakeland Pumps Station, Raw Water Pump Station, Clearwater Pump Station, and Ontario Water Treatment Plant.								
Action Number	OCV	VA-7	Goal(s) Addressed		1,6	Prioritization Score	12/15		
Year Added to Plan	2019		Timeline (estimated)		1 to 5 Years	Implementation Priority	High		
Hazard(s) Mitigated			Severe Weather, Winter Weather						
Project Status			In Progress/Not Yet Completed		<i>scontinued</i> , provide reason.	N/A			
Benefits (Loss Avoided)			High						
Lead Agency / Organization Onondaga		County Water Authority		orting Agency / Organization N/A (If applicable)		'A			
Additional Participating Jurisdictions (If applicable)		N/A							
Estimated Co	C ost High		Potential Fund Source	ing	Capital Improvement Program Funds, HMGP		inds, HMGP		
Critical Facil (Critical Facility located in 19	ity 6 floodplain?)	Yes	Additional Details (optional)		It is important to note that although this facility is a critical facility, it is not located in a SFHA; therefore, it is not listed in Section 9 of this Annex. 2025 Update: The Raw Water Pump Station, Clearwater Pump Station, and Ontario Water Treatment Plant permanent generators have been installed. Designs and procurement have begun for Park Street, Wolf Street, and Lakaland pump stations.				



Mitigation Action	Extend the Central Branch and City of Syracuse intake into deeper water away from the shoreline to limit impacts of harmful algal blooms.								
Action Number	OCWA-8		Goal(s) Addressed		2, 3, 4, 6	Prioritization Score	10/15		
Year Added to Plan	2019		Timeline (estimated)		Over 5 Years	Implementation Priority			
Hazard(s) Mitigated			Harmful Algal Bloom						
Project Status			No Progress/Not Yet Started	If Di	<i>scontinued</i> , provide reason.	N/A			
Benefits (Loss Avoided)		High							
Lead Agency / Organization Onondaga		County Water Authority Supporting Agency / Organization (If applicable)				use Water Department			
Additional Partici Jurisdictions (If ap	ipating plicable)			N/A					
Estimated Co	ost	High	Potential Funding Source		Capital Improvement Program Funds, County General Fund, HMGP				
Critical Facility located in 19	ity % floodplain?)	Yes	Additional Details (optional) It is loca		It is important to note that although this facility is a critical facility, it is not located in a SFHA; therefore, it is not listed in Section 9 of this Annex.				



Mitigation Action	Relocate the Otisco Lake Water Treatment Plant transmission mains away from Nine Mile Creek since the Creek can meander and erode the bank which could lead to damage of the transmission mains.								
Action Number	OCWA-9		A-9 Goal(s) Addressed			1, 2, 4, 6	Prioritization Score	11/15	
Year Added to Plan	2025			Timeline (estimated)		Over 5 Years	Implementation Priority		
Hazard(s) Mitigated			Flood						
Project Status				New	If Di.	<i>continued</i> , provide reason. N/A			
Benefits (Loss Avoided)			High						
Lead Agency / Organization Onondaga		County Water Authority Supportin (If app			Dorting Agency / Drganization (If applicable)	/ N/A			
Additional Partici Jurisdictions (If ap	pating			N/A					
Estimated Co	ost	High		Potential Funding Source Capital Improv		tal Improvement Program Funds, County General Fund, HMGP			
Critical Facil it (Critical Facility located in 19	i ty % floodplain?)	?) Yes		Additional Details (optional)		It is important to note that although this facility is a critical facility, it is not located in a SFHA; therefore, it is not listed in Section 9 of this Annex.			



Mitigation Action	Enhance watershed monitoring around Otisco Lake to maintain water quality that could be impacted by extreme weather events.									
Action Number	OCWA-10		Goal(s) Addressed		2, 3, 4, 6	Prioritization Score 14/15				
Year Added to Plan	2025		Timeline (estimated)		Ongoing	Implementation Priority	High			
Hazard(s) Mitigated			Drought, Flood, Harmful Algal Bloom, Severe Weather, Winter Weather							
Project Status			New	If Di	<i>iscontinued</i> , provide reason.	<i>ontinued</i> , provide N/A				
Benefits (Loss Avoided)		Medium								
Lead Agency / Organization Onondaga		County Water Authority	Supj (Supporting Agency / N/A Organization N/A (If applicable) N/A		/A				
Additional Partici Jurisdictions (If ap	i pating plicable)									
Estimated Co	ost	High	Potential Fundin Source		General Operating Funds		ds			
Critical Facilit (Critical Facility located in 19	ity %floodplain?)	No	Additional Details (optional)							



APPENDIX A. HAZARD MAPS

The following hazard maps have been generated for OCWA – [enter hazards here]. These maps are based on the best available data at the time of the preparation of this Plan and are considered to be adequate for planning purposes. Maps have only been generated for those hazards that can be clearly identified using mapping techniques and technologies, and for which OCWA has significant vulnerability.

Figure <mark>#</mark>	[Enter map name and description, if applicable]
Figure <mark>#</mark>	[Enter map name and description, if applicable]
Figure <mark>#</mark>	[Enter map name and description, if applicable]
Figure <mark>#</mark>	[Enter map name and description, if applicable]
Figure <mark>#</mark>	[Enter map name and description, if applicable]
Figure <mark>#</mark>	[Enter map name and description, if applicable]
Figure <mark>#</mark>	[Enter map name and description, if applicable]
Figure <mark>#</mark>	[Enter map name and description, if applicable]



APPENDIX B. LETTER OF INTENT

Statement of Intent to Participate in the 2024 Onondaga County Multi-Jurisdictional Hazard Mitigation Plan

The purpose of this letter is to establish commitment from, and a cooperative working relationship between, all participating jurisdictions in the development and implementation of the 2024 Onondaga County Multi-Jurisdictional Hazard Mitigation Plan (HMP). In addition, the intent of this form is to ensure that the Plan update is developed in accordance with Title 44 of the Federal Code of Regulations Part 201.6; that the planning process is conducted in an open manner involving community stakeholders; that it is consistent with each participating jurisdiction's policies, programs, and authorities; and that it is an accurate reflection of the community's values.

To meet this requirement and to help reduce the loss of life and damage to property in the event of a natural disaster, our municipality intends to participate in a federally funded grant initiative to update the 2024 Onondaga County Multi-Jurisdictional Hazard Mitigation Plan.

We understand that the planning process will include a limited number of meetings and/or calls between Planning Team representatives and representatives from participating municipalities and agencies. The subject of the meeting(s) will be to:

- · Inform participants on the needs and methods for identifying and prioritizing hazards;
- · Share information on hazards affecting local jurisdictions;
- Provide information related to local assets, plans/ordinances, hazard
- events and damages, new development, etc. within the jurisdiction; and
 Determine possible projects to reduce the impact of future incidents involving hazards
- which are prerequisites to municipalities later applying for hazard mitigation grant funds.

Onondaga County Water Authority

We recognize the importance of having an updated multi-jurisdictional hazard mitigation plan to help safeguard the lives and property of our citizens and commit to participating in this process with Onondaga County.

Name of Jurisdiction:

Name of Authorized Representative:

Primary Point-of-Contact (POC):

Name: Kelly Caramanna Title: Director of Safet Department: Sa elle Phone Number: (315)455-706/13169 Email: Kearamannan ocura. De

Signature of Authorized Representative:

Secondary Point-of-Contact (POC):

Name: Geoffrey Muller Title: Executive Director of Operations Department: Administration Phone Number: (315) 455-7061 X3153 Email: gmiller @ occoa, org

Please return this form to jefferyharrop@ongov.net, or mail to the Onondaga County Dept. of Planning, 335 Montgomery St, Syracuse, NY 13202. Questions, call Jeff at (315)435-2673.



APPENDIX C. PLAN ADOPTION

[Placeholder for adoption documentation after State and FEMA Approval]