2025 Hazard Mitigation Plan

DRAFT

Onondaga County, New York

City of Syracuse Annex

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This Annex details the hazard mitigation elements specific to the City of Syracuse, 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 the City of Syracuse. This Annex provides additional information specific to the City, with a focus on providing additional details on the hazard risk assessment and mitigation strategy (i.e., mitigation actions) for this community.

1. HAZARD MITIGATION LOCAL PLANNING TEAM

The following individuals have been identified as the City of Syracuse 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
Mary E. Robison	City Engineer	Engineering Department
Russell Houck	Facilities Engineer	Engineering Department
Jake Dishaw	Deputy Commissioner of Code Enforcement	Code Enforcement

2. MUNICIPAL PROFILE

The City of Syracuse lies in the center of Onondaga County and has a total area of 25.6 square miles. The City has operated as a major crossroads over the last two (2) centuries, first between the Erie Canal and its branch canals, then of the railway network. Syracuse is located by the intersection of Interstates 90 and 81, and its airport is the largest in the region. Furthermore, Syracuse is home to Syracuse University, a major research university, as well as several smaller colleges and professional schools. The City stands at the northeast corner of the Finger Lakes Region and the land to the north of is generally flat while land to the south is hilly. The City's major waterway is Onondaga Creek which flows north through Syracuse for six (6) miles, including through Downtown, and outlets to the Inner Harbor. The City is bordered by the Town of Salina to the north, the Town of Geddes to the northwest, the Village of Solvay to the west, the Town of Onondaga to the south, and the Town of DeWitt and Village of East Syracuse to the east.

The City has numerous neighborhoods which were originally various villages that became part of the City over the years. Although the central part of Syracuse is flat, many of its neighborhoods are located on small hills such as University Hill and Tipperary Hill. The City of Syracuse officially recognizes 26 different neighborhoods and includes numerous business districts including Downtown, Eastwood, Little Italy, University Hill, and Westcott.

The City is headed by an elected mayor who is limited to two (2), four (4) year terms. The legislative branch of Syracuse is the Syracuse Common Council. The Onondaga County Supreme and County Court is the trial court of general jurisdiction for Syracuse. It is also the administrative court for the Fifth District of the New York State Unified Court System.

2.1. Population

In 2023, the City of Syracuse had a population of 145,560, a 1.6% increase from the estimated 2018 population of 143,293. **Table 1** summarizes population distribution between 2010 and 2023, and the percentage of the 2023 population that is under five (5) years old, over 65 years old, and living below poverty level.

Table 1. Population Trends

Population				Underserved Population		
2010[1]	2018[2]	2023[3]	Population Change *(2018 – 2023)*	Youth[3] *(Under 5 years old)*	Elderly[3] *(Over 65 years old)*	Below Poverty Level[3]
145,170	143,293	145,560	1.6%	5.9%	14.3%	29.6%

2.2. History and Cultural Resources

In the early 1800s, before the City of Syracuse was known as Syracuse, it was called Bogardus Corners because the first building in the area was an inn owned by Mr. Bogardus. The inn was sold to Mr. Cossit, and the name of the area was changed to Cossit's Corners. Eventually, the community began to grow and wanted a post office and a new name. John Wilkinson, the man who was to become the Village of Syracuse's first postmaster, suggested the name "Syracuse". He had read about a city in Sicily called "Siracusa" that sounded a lot like Cossit's Corners. As a result, Cossit's Corners became the Village of Syracuse, just in time for the opening of the Erie Canal.

Syracuse's low, swampy land was ideal for canal construction. The Erie Canal opened in 1825 and quickly established Syracuse's dominance over nearby settlements, including the Village of Salina. In 1848, as a result of the boom of the early canal years, the villages of Salina and Syracuse merged to become the City of Syracuse. Syracuse's first mayor was Harvey Baldwin. The City's nickname is the "salt city" because people would say Syracuse was a city that salt built. But in reality, it was built because of the Erie Canal, which continued to run through the heart of the City until the mid-1920s.

The present appearance of Syracuse was shaped in the years after the Civil War, a time when salt manufacturing began to decline. However, Syracuse's many businesses and diversified industries assured the City's continued economic prosperity. Candle makers, beer brewers, steel producers and manufacturers of furniture, caskets, bicycles and cars helped the City to flourish. All sorts of goods were made in Syracuse (e.g., gears, typewriters, electrical devices, shoes, glass, and china) by companies who took advantage of Syracuse's good transportation system, its central location and its ready, skilled labor force.

The City of Syracuse is home to several colleges and universities including Syracuse University, State University of New York (SUNY) College of Environmental Science and Forestry, SUNY Upstate Medical University, Onondaga Community College, Pomeroy College of Nursing at Crouse Hospital, St. Joseph's College of Nursing, and Le Moyne College. In addition to collegiate sports teams, the City is also home to the Syracuse Mets (New York Mets AAA baseball affiliate), the Syracuse Crunch (hockey), and three (3) United Premier Soccer League (UPSL) minor league soccer teams. The City has numerous sports venues of various sizes to host a wide array of athletic programs. Furthermore, the City is home to 10 city libraries, various performing art venues, numerous museums and art galleries, and over 170 parks, fields, and recreation areas.

[1] United States Census Bureau. (2023). QuickFacts: City of Syracuse. Retrieved from https://www.census.gov/quickfacts/fact/table/syracusecitynewyork.
[2] United States Census Bureau. (2018). DP05: ACS Demographic and Housing Estimates (2018: 5-Year Estimates Data Profiles). Retrieved from https://data.census.gov/table/ACSDP5Y2018.DP05?g=160XX00US3673000.
[3] United States Census Bureau. (2023). QuickFacts: City of Syracuse. Retrieved from https://www.census.gov/quickfacts/fact/table/syracusecitynewyork.

3. GROWTH/DEVELOPMENT TRENDS

Understanding development trends can help evaluate whether the jurisdiction's vulnerability has increased, decreased, or remained the same. **Table 2** summarizes the total housing units built in the City of Syracuse between 2019 and 2023.[4]

Table 2. Housing Units Built (2019 – 2023)

Type	2019	2020	2021	2022	2023
Single-Family Units	7	1	12	8	9
Multi-Family Units	416	320	64	196	766
2-Family Units	*4*	*6*	*4*	*0*	*2*
3-Family Units	*0*	*3*	*0*	*0*	*0*
Apartment Units	*412*	*311*	*60*	*196*	*764*
Total Units	**423**	**321**	**76**	**204**	**775**

The Onondaga County Housing Needs Assessment, a component of the County's Comprehensive Plan, explores the County's housing market and its challenges in greater depth and argues that one of the County's greatest housing needs is an improved approach to land use planning. In the Assessment, it is stated that there are similarities and affinities between certain groups of municipalities. Therefore, the County was sub-divided into seven (7) sub-regions, each of which covers multiple municipalities. The municipalities within each sub-region, share sufficient geographic and market characteristics to be treated as a single place for purposes of further understanding the county housing market.

The City of Syracuse is under its own sub-region because it is the main city of the metro region, urban center of the County, and the softest part of the County's market. The City is the largest municipality and the single largest submarket by population and number of households. This sub-region has a smaller proportion of married couple families, both elderly (5%) and non-elderly (17%), and more single-parent families (26%) and non-elderly people living alone (29%). Total household growth between 2000 and 2020 decreased by 0.2% (the average of all the County towns/villages was 12.0%). A high rate of growth in the County and departure from past markets and development behaviors would benefit the City of Syracuse. The City of Syracuse is not well-positioned within the County for a low-growth future.

Table 3 summarizes major recent residential/commercial development (in the past five (5) years), and any known or anticipated major residential/commercial development and major infrastructure development, as of December 2024, that is likely to occur within hazard prone areas in the next five (5) years.

Table 3. Growth and Development

Property or Development Name	Location	Type *(e.g., residential, commercial)*	# of Units/ Structures	Known Hazard Zone(s)	Status of Development
Recent Development in the Past Five (5) Years (2019 – 2024)					
Creekwalk (Phase 2)	Onondaga Creek, South Side Syracuse	Infrastructure	N/A	Flood	Complete
JMA Wireless Plant	Clinton Street Syracuse, NY 13202	Commercial	N/A	Flood	Complete

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

Property or Development Name	Location	Type *(e.g., residential, commercial)*	# of Units/ Structures	Known Hazard Zone(s)	Status of Development
Tiny Homes for Good	Rich Street Syracuse, NY 13204	Residential	3	Flood	Complete
Maguire Auto Dealership	959 Hiawatha Boulevard Syracuse, NY 13204	Commercial	N/A	Flood	Complete
Star Park Apartments	135 State Fair Boulevard Syracuse, NY 13204	Residential	20	Flood	Complete
Known or Anticipated Development in the Next Five (5) Years (2024 – 2029)					
Onondaga County Aquarium	451 Solar Street Syracuse, NY 13204	Commercial	N/A	Flood	Under Construction
Creekwalk (Phase 3)	Onondaga Creek, South Side/Valley Syracuse	Infrastructure	N/A	Flood	Planning/Design Stage
Rescue Mission – Gifford Commons	155 Gifford Street Syracuse, NY 13202	Residential	TBD	Flood	Planning/Design Stage
Salina First	S. Salina Street Syracuse, NY 13202	Mixed Use	20	Flood	Construction On Hold
Inner Harbor Local Waterfront Revitalization Program	Inner Harbor	Infrastructure, Commercial	N/A	Flood	Planning/Design Stage

3.1. Changes in Priority

The overall hazard mitigation priorities have not significantly changed for the City of Syracuse 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 the City of Syracuse's authorities, policies, programs, and resources. Goals and mitigation actions were developed using input from this assessment. Information regarding the City'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 City's capabilities that can contribute to the reduction of long-term vulnerabilities to hazards. The capabilities include the following categories:

- Planning and Regulatory Capabilities
- 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 City 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).

Table 4. Planning and Regulatory Capabilities

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 Capability				
Comprehensive Plan	Yes	Local	Department of Planning and Sustainability	City of Syracuse Comprehensive Plan 2040 (2012)
Capital Improvements Plan	Yes	Local	Office of Management and Budget	2025-2030 Capital Improvement Program
Floodplain Management / Basin Plan	No	N/A	N/A	N/A
Stormwater Management Plan	Yes	Local, State	Engineering Department	Stormwater Management Plan (2019) Member of the Central New York (CNY) Stormwater Coalition
Open Space Plan	Yes	Local	Department of Planning and Sustainability	It is part of the Land Use & Development Plan 2040; specific plan is under development.
Stream Corridor Management Plan	No	N/A	N/A	N/A
Watershed Management or Protection Plan	No	N/A	N/A	N/A
Economic Development Plan	Yes	Local	Department of Planning and Sustainability	City of Syracuse Comprehensive Plan 2040 (2012)
Comprehensive Emergency Management Plan	No	N/A	N/A	N/A
Emergency Operation Plan	No	N/A	N/A	N/A
Evacuation Plan	No	N/A	N/A	N/A

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.)*
Post-Disaster Recovery Plan	No	N/A	N/A	N/A
Transportation Plan	Yes	State, Local	Syracuse Metro Transportation Council, Department of Planning and Sustainability	2050 Long Range Transportation Plan – Moving Towards a Greater Syracuse Syracuse Bicycle Plan 2040 (component of the Comprehensive Plan) Syracuse Pedestrian Plan is under development
Strategic Recovery Planning Report	No	N/A	N/A	N/A
Climate Adaptation Plan	Yes	Local	Department of Planning and Sustainability	Syracuse Sustainability Plan (part of the Comprehensive Plan)
Resilience Plan	No	N/A	N/A	N/A
Regulatory Capability				
Building Code	Yes	State, Local	Code Enforcement	Chapter 16 of the New York State Building Code Chapter 17 of the City Code
Zoning Ordinance	Yes	Local	Zoning Department	Chapter 26 of the City Code
Subdivision Ordinance	Yes	Local	Zoning Department	Chapter 13 of the City Code
NFIP Flood Damage Prevention Ordinance	Yes	Local	Code Enforcement, Zoning Department	Local Law #5 of the City Code
NFIP: Cumulative Substantial Damages	No	N/A	N/A	N/A
NFIP: Freeboard	Yes	State, Local	Code Enforcement, Engineering Department	Chapter 16 of the New York State Building Code Local Law #5 of the City Code State mandated two (2) feet above the BFE for all construction, both residential and non-residential.
Growth Management Ordinances	No	N/A	N/A	N/A
Site Plan Review Requirements	No	N/A	N/A	N/A

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.)*
Stormwater Management Ordinance	Yes	Local	Code Enforcement, Engineering Department	City of Syracuse Stormwater Management and Erosion Control Ordinance #53
Municipal Separate Storm Sewer System (MS4)	Yes	County, Local	Engineering Department, Department of Public Works	Permits are required for stormwater discharges from MS4s in urbanized areas and for construction activities disturbing one (1) or more acres. The Town has been automatically designated as a regulated MS4 and required to develop a comprehensive stormwater management program.
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	Yes	State	New York State Department of State, Real Estate Agent	New York Code – Article 14 §460-467 (Property Condition Disclosure Act)
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 community (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 may rely on other government entities, such as counties or special districts, for resources.

Table 5. Administrative and Technical Capabilities

Capability	Yes/No	Position/Department/Agency
Administrative Capabilities		
Planning Board	Yes	Department of Planning and Sustainability Planning Commission Board of Zoning Appeals Syracuse Landmark Preservation Board
Mitigation Planning Committee	No	N/A
Environmental Board/Commission	No	N/A
Open Space Board/Committee	No	N/A
Economic Development Commission/Committee	Yes	Syracuse Industrial Development Agency

Capability	Yes/No	Position/Department/Agency
Maintenance programs to reduce risk	Yes	Department of Public Works (drainage clearing) Department of Parks, Recreation, and Youth Programs (tree trimming)
Mutual aid agreements	Yes	Local Fire departments
Technical/Staffing Capabilities		
Planner(s) or engineer(s) with knowledge of land development and land management practices	Yes	Department of Planning and Sustainability Engineering Department
Engineer(s) or professional(s) trained in construction practices related to buildings and/or infrastructure	Yes	Civil Engineers, Engineering Department
Planners or engineers with an understanding of natural hazards	Yes	Certified Floodplain Manager, Engineering Department
NFIP Floodplain Administrator	Yes	Director of Codes, Code Enforcement Certified Floodplain Manager, Engineering Department
Surveyor(s)	Yes	Engineering Department
Personnel skilled or trained in GIS applications	Yes	GIS Analyst, Engineering Department
Scientist familiar with natural hazards	Yes	City Arborist, Department of Planning and Sustainability
Warning systems/services	Yes	Onondaga County Emergency Communications (911)
Emergency Manager	No	N/A
Grant writer(s)	Yes	Bureau of Research Department of Planning and Sustainability
Staff with expertise or training in benefit/cost analysis	No	N/A
Professionals trained in conducting damage assessments	No	N/A

4.3. Fiscal Capabilities

Table 6 contains a list of fiscal capabilities available to the City 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

Capability	Accessible or Eligible to Use
Community Development Block Grants (CDBG, CDBG-DR)	Yes
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

Capability	Accessible or Eligible to Use
Authority to Levy Taxes for specific purposes	Yes
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 City'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 community's impacts to disasters. These capabilities include fire safety programs, hazard awareness campaigns, public information, and communications offices.

Table 7. Education and Outreach Capabilities

Capability	Yes/No	Position/Department/Agency
Public Information Officer	Yes	Office of Communications Mayor's Office
Personnel skilled or trained in website development	Yes	Office of Communications Mayor's Office
Hazard mitigation information available on the jurisdiction's website	Yes	Engineering Department
Utilize social media for hazard mitigation education	Yes	Office of Communications Mayor's Office
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	No	N/A
An established warning system for hazard events	Yes	Digital Services Team Mayor's Office Onondaga County Emergency Communications (911) *At the time of this Plan update, the City was developing a Water Alert Level Dashboard.*

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 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 8** summarizes classifications for community programs available to the City of Syracuse.

Table 8. Community Classifications

Program	Yes/No	Classification *(if applicable)*	Date Classified *(if applicable)*
Community Rating System (CRS)	Yes	7	2021 (Recertification)
Building Code Effectiveness Grading Schedule (BCEGS)	No	N/A	N/A
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	1	N/A
New York State Department of Environmental Conservation Climate Smart Community	Yes	Registered	2010
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)	Yes	N/A	Onondaga Lake Watershed Advisory Committee
Public-private partnership initiatives addressing disaster-related issues	No	N/A	N/A

4.6. Capability Self-Assessment

Table 9 provides an approximate measure of the City of Syracuse's capability to work in a hazard mitigation capacity and/or effectively implement hazard mitigation strategies to reduce hazard vulnerabilities.

Table 9. Self-Assessment Capability

Capability Area	Degree of Hazard Mitigation Capability		
	Limited *(If limited, what are your obstacles?)*	***Moderate***	***High***
Planning and Regulatory Capabilities		**X**	
Administrative and Technical Capabilities		**X**	
Fiscal Capabilities	**X** *(Budget is constrained due to limited tax base relative to extent of city infrastructure)*		
Education and Outreach Capabilities	**X**		
Community Political Capabilities	**X** *(Budget is constrained due to limited tax base relative to extent of city infrastructure)*		
Community Resiliency Capabilities	**X** *(Budget is constrained due to limited tax base relative to extent of city infrastructure)*		

Capability Area	Degree of Hazard Mitigation Capability		
	Limited *(If limited, what are your obstacles?)*	*Moderate*	*High*
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, the City of Syracuse 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).

- Develop and implement a Model Recovery Ordinance and/or a Pre-Event Recovery Ordinance that establishes local roles and responsibilities for organizing and directing post-disaster recovery efforts.
- Enhance GIS capabilities for water and sewer systems/infrastructure; however, to support these improvements, a funding match and/or grant funding will be required.
- Enhance City staff, on an as needed basis, that have experience with developing benefit cost analysis and perform substantial damage estimates.
- Develop a City webpage for public education about natural hazards and hazard mitigation such as information on local risks, preparedness, ongoing mitigation projects, and resources on vulnerability reduction.

5. NATIONAL FLOOD INSURANCE PROGRAM

The City of Syracuse is a member of the National Flood Insurance Program (NFIP) and has chosen to participate in the NFIP Community Rating System (CRS) Program. The City is in good standing with the NFIP through adoption and enforcement of floodplain management requirements (e.g., regulating all new and substantially improved construction in Special Hazard Flood Areas), floodplain identification and mapping, and flood insurance outreach to the community. The City's NFIP participation information is listed in **Table 10**.

Table 10. NFIP Participation Information

CID	NFIP Participation Date	Current Effective FIRM Date	CRS Entry Date	CRS Current Effective Date	CRS Class
360595	4/12/1974	11/4/2016	10/1/1993	10/1/2021	7

5.1. NFIP Floodplain Administrator

All NFIP participating jurisdictions have a designated Floodplain Administrator that is charged with enforcing floodplain regulations, routinely monitoring the floodplains, and providing community assistance such as encouraging owners to maintain flood insurance. The City of Syracuse Floodplain Administrator information is listed in **Table 11**.

Table 11. Floodplain Administrator

Name	Title	Department	Phone Number
Ryan Shiel	Director of Code Enforcement	Code Enforcement	(315) 448-8702

5.2. Repetitive Loss and Severe Repetitive Loss Property

FEMA defines a Repetitive Loss property as an NFIP-insured property meeting at least one (1) of the following paid loss criteria since 1978, regardless of any changes in ownership:

- Four (4) or more separate claims payments greater than $5,000 each (including building and contents payment).
- Two (2) or more separate flood insurance claims payments (building payments only), where the total of the payments is greater than the property's current value.

Additionally, to receive a designation, at least two (2) of the claim payments must occur within 10 years of one another.[5]

A Severe Repetitive Loss property is defined by FEMA as any NFIP-insured single-family or multi-family residential building meeting at least one (1) of the following paid loss criteria since 1978 or from building constructed after 1978, regardless of any changes in ownership:[6]

- That has incurred flood-related damage for which four (4) or more separate claims payments have been made, with the amount of each claim (including building and contents payments) exceeding $5,000, and with the cumulative amount of such claims payments exceeding $20,000.
- For which at least two (2) separate claims payments (building payments only) have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the building.

Table 12 summarizes FEMA Repetitive Loss and Severe Repetitive Loss properties within the City of Syracuse.

Table 12. Repetitive Loss and Severe Repetitive Loss Properties

Repetitive Loss Properties		Severe Repetitive Loss Properties	
Total	***Occupancy***	***Total***	***Occupancy***
8	**3** Single Family **1** Two (2)-Four (4) Unit Residential Building **1** More than Four (4) Units Residential Building **1** Non-Residential Building **2** Single-Family Residential Building	1	**1** Non-Residential Building
Occupancy Type: *Single Family = Single family residence • Two (2)-Four (4) Unit Residential Building = Two (2)-four (4) unit residential building • More Than Four (4) Units Residential Building = Residential building with more than four (4) units • Non-Residential Building = Non-residential building • Non-Residential Business = Non-residential business • Single Family Residential Building = Single-family residential building with the exception of a mobile home or a single residential unit within a multi-unit building • Residential (2, 3, or 4 units) Non-Condo Building = Residential non-condo building with two (2), three (3), or four (4) units seeking insurance on all units • Residential (5 or more units) Non-Condo Building = Residential non-condo building with 5 or more units seeking insurance on all units • Residential Mobile/Manufactured Home = Residential mobile/manufactured home • Residential Condo Association = Residential condo association seeking coverage on a building with one (1) or more units • Single Residential Unit = Single residential unit within a multi-unit building • Non-Residential Mobile/manufactured Home = Non-residential mobile/manufactured home • Non-Residential Building = Non-residential building • Non-Residential Unit = Non-residential unit within a multi-unit building*			

[5] Federal Emergency Management Agency, National Flood Insurance Program. (2023). A Policyholder's Guide to Severe Repetitive Loss. Retrieved from https://agents.floodsmart.gov/sites/default/files/fema_nfip-policyholders-guide-severe-repetitive-loss_brochure_07-2023.pdf.

[6] Federal Emergency Management Agency, National Flood Insurance Program. (2021). National Flood Insurance Program: Flood Insurance Manual. Retrieved from https://www.fema.gov/sites/default/files/documents/fema_nfip-all-flood-insurance-manual-apr-2021.pdf.

Table 13 summarizes the NFIP active policies and coverage in force data for the City of Syracuse.

Table 13. NFIP Policies

NFIP Policies	Insurance in Force	Total Claims Paid	Sum of Claims Paid
161	$99,647	115	$408,395

5.3. Participation Activities

The City of Syracuse NFIP participation over the last five (5) years includes the following:

- Provides the following services – permit review, GIS, inspections, and engineering capability.
- The City has a Certified Floodplain Manager (CFM) within the City's Engineering Department.
- Teaches property owners or other stakeholders about the importance of flood insurance through public outreach events, workshops, and/or seminars. Additionally, flood insurance information is shared with residents periodically.
- Enforces local floodplain management regulations and monitors compliance.
- Floodplain management regulations meet or exceed FEMA or State minimum requirements.
- Participates in the CRS Program.

5.3.1. Regulatory

Flood Damage Prevention Ordinance

The City of Syracuse's Flood Damage Prevention Ordinance (*Local Law #5*) was adopted to promote public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- Regulate uses which are dangerous to health, safety and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities.
- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction.
- Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters.
- Control filling, grading, dredging, and other development which may increase erosion or flood damages.
- Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands.
- Qualify for and maintain participation in the NFIP.

The objectives of this Local Law are to:

- Protect human life and health.
- Minimize expenditure of public money for costly flood control projects.

- Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public.
- Minimize prolonged business interruptions.
- Minimize damage to public facilities and utilities, such as water and gas mains, electric, telephone, and sewer lines, streets, and bridges located in areas of special flood hazard.
- Help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas.
- Provide that developers are notified that property is in an area of special flood hazard.
- Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

Substantial Damage

Substantial damage means damage of any origin sustained by a structure whereby the cost of restoring the structure to its before damaged condition would equal or exceed 50% of the market value of the structure before the damage occurred. *(Local Law #5)*

Substantial Improvement

Substantial improvement means any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred *substantial damage*, regardless of the actual repair work performed. The term does not, however, include either:

- Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local Code Enforcement Official and which are the minimum necessary to assure safe living conditions; or
- Any alteration of a "historic structure"; provided, that the alteration will not preclude the structure's continued designation as a "historic structure." *(Local Law #5)*

There are other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements.

6. HAZARD MITIGATION PLAN INTEGRATION

In order for a community to successfully reduce long term risk, hazard mitigation must be integrated into day-to-day 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, the City of Syracuse made progress on integrating components of the hazard mitigation strategy (e.g., goals, objectives, and actions) into planning initiatives and mechanisms. **Table 14** highlights the planning mechanisms/initiatives where the previous Plan was integrated and what information was integrated.

Table 14. Current Plan Integration

Planning Initiative	Current Integration Description
Stormwater Management Plan	The City of Syracuse is a Municipal Separate Storm Sewer System (MS4) regulation community with a formal Stormwater Management Plan. The Stormwater Management Plan, updated in 2019, includes projects, actions, and initiatives to reduce the volume of stormwater or otherwise mitigate stormwater flooding. Hazard mitigation measures have been implemented in activities that impact stormwater.
Capital Improvement Plan	The Capital Improvement Plan should continue to utilize flexibility to incorporate mitigation measures in planned projects and the project evaluation criteria which includes public health and safety, regulatory compliance, and grant funding requirements.
Urban Forest Master Plan	The Urban Forest Master Plan evaluates the current conditions of the City's urban forest, its short and long term management approach, and the level of engagement that organizations and people have with the forest. Furthermore, the Plan includes recommendations to renew and grow the City's urban forest including actions and projects on tree canopy expansion that could help mitigate heat wave/extreme heat. Hazard information and data was incorporated into the development of the Urban Forest Master Plan.
Municipal Budget	The City has a line item for mitigation actions in the Capital Improvement Plan and Municipal Budget.
Floodplain Management	The City initiated the Arsenal Park Study to assess a potential flood storage project along Onondaga Creek. The City continued to review development within the floodplain to ensure that development met City and State regulations. Furthermore, the City has been part of the Onondaga Creek Mudboil Technical Advisory Group which is assessing alternatives to reduce sediment loading into Onondaga Creek. The City assessed floodplain management strategies as part of the yearly CRS review.

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 15** outlines planning mechanisms/initiatives that do not currently integrate goals and recommendations of this Plan but provide opportunities to do so in the future.

Table 15. Potential Future Integration

Planning Initiative	Potential Integration Description
Comprehensive Plan	The Hazard Mitigation Plan should be incorporated in the next update of the City's Comprehensive Plan to enhance the community's resilience by integrating strategies for risk reduction into land use, development, and infrastructure planning. Furthermore, hazard mitigation goals could be aligned with the vision of the Comprehensive Plan and hazard risk assessment information could be used to address vulnerabilities.

Planning Initiative	Potential Integration Description
Stormwater Management Plan	The City of Syracuse is a Municipal Separate Storm Sewer System (MS4) regulation community with a formal Stormwater Management Plan. Mitigation actions in this Hazard Mitigation Plan can inform updates and revisions to the Stormwater Management Plan. Furthermore, projects outlined in the Stormwater Management Plan and this Hazard Mitigation Plan could be aligned. The Hazard Mitigation Plan may identify new possible funding sources for stormwater improvement projects and may result in modifications to proposed projects based on results of the risk assessment.
Capital Improvement Plan	The City will continue to 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.
Zoning Ordinance	Hazard mitigation could be further integrated into the City of Syracuse Zoning Ordinance through focused regulation of open space, impervious areas, and critical water resources and environmental areas.
Floodplain Management	The City will complete the Arsenal Park Study to assess a potential flood storage project along Onondaga Creek. The City will continue to review development within the floodplain to ensure that development meets City and State regulations. Furthermore, the City will also continue to be part of the Onondaga Creek Mudboil Technical Advisory Group which is finalizing a Feasibility Study in 2025 to assess alternatives that reduce sediment loading into Onondaga Creek. The City will continue to assess floodplain management strategies as part of the yearly CRS review and undergo the five (5) year CRS recertification.

The City'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 16** provides information on significant hazard events that uniquely impacted the City of Syracuse.

Table 16. Significant Past Events

Date	Event Type *(Disaster Declaration, if applicable)*	Description
June 6 – 7, 2023	Wildfire	Over 250 wildfires were occurring in Quebec, Canada causing wildfire smoke to drift into Onondaga County and the rest of northeastern United States reducing the air quality to hazardous levels. A nearly stationary low pressure system near Maine and the Canadian maritime provinces produced persistent northerly winds directing the wildfire smoke into portion of the northeastern United States. In addition to the reduction of air quality, visibility was also affected. Tens of millions of people were under air quality alerts between June 6 and 7, 2023; however, the worst day was June 7th. This event resulted in economic losses across the State as flights were cancelled, restaurants and businesses closed, outdoor activities and work were cancelled.
October 2021	Flood	Heavy rainfall events resulted in 10% annual discharges (10-year flows) on Onondaga Creek which caused flooding into Franklin Square, Kirk Park, Lower Onondaga Park and adjacent properties. Flooding resulted in road closures of local roads and Creekwalk. The City incurred costs for cleaning up of trees, vegetation, and sediment.
August 2021	Flood	Heavy rainfall events resulted in 10% annual discharges (10-year flows) on Onondaga Creek which caused flooding into Franklin Square, Kirk Park, Lower Onondaga Park, Elmwood Park, and adjacent properties. Flooding resulted in road closures of local roads and Creekwalk. The City incurred costs for cleaning up of trees, vegetation, and sediment.
August 2018	Harmful Algal Bloom	A small localized 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 Syracuse Water Department lake intakes.
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 Syracuse Water Department lake intakes.
June 30 – July 1, 2015	Flood	An unseasonably strong storm system tapping into above normal moisture sources across the Great Lakes and northeast, triggered multiple thunderstorms that produced heavy rainfall across the region. Localized torrential rainfall in central New York caused serious urban flash flooding in the Syracuse metropolitan area. The City estimated $3 to $5 Million in damages. One (1) person died after entering a flooded area and being pulled into a manhole and sewer system in the intersection of Croly Street and E. Fayette Street.

Date	Event Type *(Disaster Declaration, if applicable)*	Description
April 25, 2011	Severe Weather, Flood (DR-1193)	A slow moving warm front moved northward across central New York late in the afternoon on April 25th producing severe weather in the region. There were reports of severe thunderstorms with strong winds/damaging winds, hail, and tornadoes. Additionally, these storms produced heavy rainfall which caused flash flooding in several locations throughout central New York. The City experienced straight line wind damage which resulted in road closures and damages to city facilities.
May 26, 2011	Severe Weather	On May 26th, a deep upper level low pressure system shifted east from the mid-Mississippi Valley region through the afternoon and evening, producing numerous showers and thunderstorms. Many reports of large hail and strong winds/damaging winds occurred in central New York. The City experienced straight line wind damage which resulted in road closures and damages to city facilities.

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 17 outlines the ***unique vulnerabilities and impacts*** for the City of Syracuse 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.

Table 17. Hazard Vulnerability and Impact Assessment

Hazard	Vulnerabilities and Impacts
Drought	Skaneateles Lake is the primary water source for the City; therefore, a drought would impact the City's ability to supply water to residents within the City, and surrounding towns and villages.
Earthquake	A significant earthquake would drastically impact the City's high rise buildings in Downtown, the aging utility infrastructure, and historic building infrastructure.
Heat Wave/Extreme Heat	The City of Syracuse has a large area of impervious surfaces which creates a heat island effect. The heat island effect would be magnified during heat wave/extreme heat events. The City is considered a disadvantaged community because many of its residents do not have air conditioning, which makes this population uniquely vulnerable during these events. Additionally, over the past five (5) years, there has been a distinct increase in unhoused individuals who are uniquely vulnerable to heat wave/extreme heat events. The underserved and socially vulnerable population within the City includes individuals with limited English proficiency which are uniquely vulnerable because this population may have limited access to information and resources designed in their primary language.

Hazard	Vulnerabilities and Impacts
Flood *(riverine, flash/urban, ice jam, dam and levee failure)*	The City has approximately 1,200 properties within the FEMA 100-Year floodplain for Onondaga Creek, Harbor Brook, and Meadowbrook. During 10-year flood events, Onondaga Creek flooded its banks in 2021 and 2022 and started to flood adjacent properties near Lower Onondaga Park. A 100-year flood event would cause severe flooding and impacting hundreds of homes. The main areas of potential impact are also underserved, low-income neighborhoods. The City is located within the dam inundation area of two (2) dams and in the event of a dam failure, the impacts can be catastrophic due to the population downstream.
Geological Hazards *(landslides, land subsidence, mudboils)*	The Tully Mudboils are the largest system of mudboils within the County. These mudboils add a significant amount of sediment to Onondaga Creek on a daily basis. This sediment reaches the City and causes sedimentation of the creek channel within Syracuse. The sedimentation has and continues to reduce the carrying capacity of the creek channel and increases the potential for flooding into heavily populated areas.
Harmful Algal Bloom	Skaneateles Lake is the primary water source for the City; therefore, a harmful algal bloom event would impact the City's ability to supply water to residents within the City, and surrounding towns and villages.
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)*	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to invasive species and infestation; rather, the jurisdiction's vulnerability and impacts are consistent with those experienced throughout the County.
Severe Weather *(severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)*	The City has a high homeless population which would be significantly impacted in the event of severe weather due to the lack of access to shelter. As a result, it exposes this population to health complications, injuries, and even death. The underserved and socially vulnerable population within the City includes individuals with limited English proficiency which are uniquely vulnerable because this population may have limited access to information and resources designed in their primary language.
Winter Weather *(blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter)*	The City's population density and designation as a disadvantaged community makes the City uniquely vulnerable to winter weather events. The City has a high number of road miles (approximately 400 miles) to plow, and it is also the hub of public transportation and all emergency hospitals for the community and surrounding areas. Additionally, the City has a high homeless population which would be significantly impacted in the event of severe weather due to the lack of access to shelter. As a result, this population is directly exposed to extreme cold temperatures resulting in health complications (e.g., hypothermia), injuries, and even death. The underserved and socially vulnerable population within the City includes individuals with limited English proficiency which are uniquely vulnerable because this population may have limited access to information and resources designed in their primary language.
Wildfire *(wildfire smoke)*	The Local Planning Team determined that the City does not have unique vulnerabilities and impacts to wildfire; rather, the jurisdiction's vulnerability and impacts are consistent with those experienced throughout the County.

The City 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 18 outlines if climate change has increased or decreased the City'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.

Table 18. Climate Change Current and Future Vulnerability and Impact

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)*	Remained the Same
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)*	Increased
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)*	No Change Anticipated
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)*	Increase

Table 19 outlines whether changes in population within the City 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 19. Changes in Population Current and Future Vulnerability and Impact

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)*	Remained the Same
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)*	Increased
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)*	No Change Anticipated
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)*	Increase

Table 20 outlines if development over the past five (5) years has increased or decreased the City's 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 20. Changes in Development Current and Future Vulnerability and Impact

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

Hazard	Vulnerability and Impact
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 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)*	No Change Anticipated
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)*	Increase

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.

- The City anticipates that the unhoused population will face further challenges as the Interstate 81 project progresses because many seek shelter under the Interstate's overpasses during extreme weather events such as severe weather and winter weather. Therefore, removal of these overpasses will decrease this population's access to shelter. Lack of shelter will expose this population to the elements which can lead to significant health risks. Additionally, the Micron project is expected to increase development throughout the City which will further displace the unhoused population.

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).[7] 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.[8]

Table 21 identifies critical facilities in the community located in the 100-year and 500-year floodplain.

Table 21. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Potential Loss from 100-Year Flood Event		Addressed by Proposed Action
		100-Year	*500-Year*	*% Structure Damage*	*% Content Damage*	
Onondaga County Metropolitan Plant *(owned by the Onondaga Department of Water Environment Protection)*	Wastewater Treatment Plant	X	X	-	-	CS-25
National Grid Clinton Street/Taylor Street Electrical Substation	Electric Transfer	X	X	-	-	-
Note: The National Grid Clinton Street/Taylor Street Electrical substation new enclosed buildings have been raised to the two (2) feet base flood elevation (BFE) in 2023.						

10. HAZARD RISK RANKING

Table 22 presents the local hazard ranking for the City of Syracuse 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 22** 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

[7] New York State Department of Environmental Conservation. (n.d.). Chapter V – Resource Management Services. Retrieved from https://dec.ny.gov/regulatory/regulations/chapter-v.
[8] New York State Division of Homeland Security and Emergency Services. (2022). 2022 New York State Hazard Mitigation Planning Standards. Retrieved from https://www.dhses.ny.gov/system/files/documents/2023/11/2022-nys-mitigation-planning-standards-final.pdf

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**.

Table 22. City of Syracuse Hazard Risk Ranking

Hazard Event	Probability Factor	Sum of Weighted Extent Factors	Sum of Weighted Vulnerability Factors	Sum of Weighted Impact 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	14	42	61
Strong Winds/ Damaging Winds *(Severe Weather)*	3	12	11	16	39	57
Flood (Riverine/Creek, Ice Jam)	2	15	11	29	55	54
Cold Wave/Extreme Cold *(Winter Weather)*	2	12	14	21	47	48
Harmful Algal Bloom	2	9	10	20	39	41
Heat Wave/Extreme Heat	2	9	11	19	39	41
Drought	2	12	12	13	37	39
Tropical Storm/ Hurricane *(Severe Weather)*	1	9	16	24	49	27
Dam and Levee Failure *(Flood)*	1	12	6	27	45	25
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
Invasive Species and Infestation	1	9	6	18	33	20

Hazard Event	Probability Factor	Sum of Weighted Extent Factors	Sum of Weighted Vulnerability Factors	Sum of Weighted Impact Factors	Consequence Score	Total Risk Score *(Probability x Consequence)*
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
Wildfire (Wildfire Smoke)	1	3	6	11	20	13

Consequence: *Sum of all weighted factors.*
Extent: *Sum of the weighted Extent factors.*
Vulnerability: *Sum of the weighted Vulnerability factors.*
Impact: *Sum of the weighted Impact factors.*
Total Risk Score* = *Probability x Consequence*
* *Normalized to 100*

Total Risk Score Legend

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 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).

The City of Syracuse agreed upon **19** mitigation actions that apply to the jurisdiction's properties where they have jurisdictional responsibility and authority. A summary of the City's mitigation actions status is listed in **Table 23**.

Table 23. City of Syracuse Mitigation Action Summary

Status	Mitigation Action Total
Continuous	6
In Progress/Not Yet Completed	6
No Progress/Not Yet Started	3
New	4
TOTAL	**19**
Complete	0
Discontinued	7

Mitigation Actions per Hazard			
Drought	3	Harmful Algal Bloom	3
Earthquake	3	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)*	4
Heat Wave/Extreme Heat	3	Severe Weather *(severe thunderstorms – hail, strong winds/damaging winds, tornadoes, hurricane/tropical storm)*	16
Flood *(riverine, flash/urban, ice jam, dam and levee failure)*	18	Winter Weather *(blizzards, heavy snow, ice storms, cold wave/extreme cold, nor'easter)*	5
Geological Hazards *(landslides, land subsidence, mudboils)*	3	Wildfire *(wildfire smoke)*	3

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

Mitigation Action	Conduct and facilitate public education and outreach to increase awareness of local hazards and mitigation initiatives.				
Action Number	CS-1	**Goal(s) Addressed**	2	**Prioritization Score**	15/15
Year Added to Plan	2013	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	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 *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Syracuse Planning and Sustainability, City of Syracuse Engineering Department, City of Syracuse Water Department	**Supporting Agency / Organization** *(If applicable)*	Onondaga County Department of Planning		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Low	**Potential Funding Source**	Local Budgeted Funds (Staff Time), HMGP, BRIC		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	**2025 Update:** Information is available on drinking water and flooding hazards on the City's website. A Department of Water Annual Consumer Confidence Report Newsletter is sent annually to every household and business.		

Mitigation Action	Create, enhance, and maintain mutual aid agreements with neighboring communities for increased coordination between the City of Syracuse, its neighboring jurisdictions, and Onondaga County for response and hazard mitigation planning.				
Action Number	CS-2	**Goal(s) Addressed**	1, 2, 3, 4, 5, 6	**Prioritization Score**	8/15
Year Added to Plan	2013	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	Medium
Hazard(s) Mitigated	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 *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Syracuse Engineering Department, City of Syracuse Planning and Sustainability Department, City of Syracuse Department of Public Works, City of Syracuse Water Department, Mayor's Office	**Supporting Agency / Organization** *(If applicable)*	Onondaga County Department of Planning		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Low	**Potential Funding Source**	Local Budgeted Funds (Staff Time)		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*			

Mitigation Action	Participate in stream inspection and cleanup. This entails inspecting streams on a regular basis and after heavy flow events to ensure there is no debris and/or blockages that can result in flooding.				
Action Number	CS-3	**Goal(s) Addressed**	1, 4	**Prioritization Score**	9/15
Year Added to Plan	2013	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	Medium
Hazard(s) Mitigated	Flood, Severe Weather				
Project Status	Continuous	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Syracuse Department of Public Works, City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	Onondaga County Water Environmental Protection		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Medium	**Potential Funding Source**	Local Budgeted Funds (Staff Time), New York State Water Quality Improvement Project (WQIP) Program grants		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	**2025 Update:** The City inspects all streams semi-annually and after higher flow events, and mobilizes Department of Public Works staff to remove debris and blockages. Additionally, the City inspects County-owned streams within the City and notifies the County when debris and/or blockages need to be removed.		

Mitigation Action	Conduct a feasibility study of "daylighting" feeder streams to Onondaga Creek (e.g., Harbor Brook, Kimber Brook) to return streams to a more natural condition, increasing their capability particularly during high water and severe weather events.				
Action Number	CS-4	**Goal(s) Addressed**	N/A	**Prioritization Score**	N/A
Year Added to Plan	2013	**Timeline** *(estimated)*	N/A	**Implementation Priority**	N/A
Hazard(s) Mitigated	Flood, Severe Weather				
Project Status	Discontinued	If *Discontinued*, provide reason.	This project has been discontinued due to changes in priorities.		
Benefits *(Loss Avoided)*	N/A				
Lead Agency / Organization	City of Syracuse Engineering Department, City of Syracuse Department of Public Works	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	N/A	**Potential Funding Source**	N/A		
Critical Facility *(Critical Facility located in 1% floodplain?)*	N/A	**Additional Details** *(optional)*			

Mitigation Action	Retrofit deficient sewers, replace sewers with greater capacity systems, and continue to separate combined storm and sanitary sewers to reduce overflow.				
Action Number	CS-5	**Goal(s) Addressed**	1, 3	**Prioritization Score**	9/15
Year Added to Plan	2013	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	Medium
Hazard(s) Mitigated	Flood, Severe Weather				
Project Status	Continuous	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Syracuse Engineering Department, Mayor's Office	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Medium	**Potential Funding Source**	New York State Water Quality Improvement Project (WQIP) Program grants		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*			

Mitigation Action	Conduct dredging and cleaning of Onondaga Creek due to sedimentation from upstream sources (e.g., Tully Mudboils) continuing to reduce channel capacity and flood storage.				
Action Number	CS-6	**Goal(s) Addressed**	1, 4	**Prioritization Score**	9/15
Year Added to Plan	2013	**Timeline** *(estimated)*	1 to 3 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated		Flood, Severe Weather			
Project Status		No Progress/Not Yet Started	If *Discontinued*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	City of Syracuse Engineering Department, City of Syracuse Department of Public Works, Mayor's Office		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	High	**Potential Funding Source**	New York State Department of Environmental Conservation funds		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	**2025 Update:** The 2016 Onondaga Creek Study indicated high cost, large environmental impacts, and low feasibility for this project. Currently, NYSDEC is looking at alternatives to trap Tully mudboils sediment near the source. The City is also looking at flood storage options. Channel dredging is still under consideration under a more limited scope.		

Mitigation Action	Conduct enhancements to the bank of Onondaga Creek by repairing the portions of the channel that are damaged, removing invasive species, and planting native species for bank stabilization. This will help reduce erosion and scour that increases potential damage to bridge abutments and culverts.				
Action Number	CS-7	**Goal(s) Addressed**	1, 4	**Prioritization Score**	5/15
Year Added to Plan	2013	**Timeline** *(estimated)*	1 to 3 Years	**Implementation Priority**	Low
Hazard(s) Mitigated	Flood, Invasive Species and Infestation, Severe Weather				
Project Status	In Progress/Not Yet Completed	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Syracuse Engineering Department, City of Syracuse Department of Public Works	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	High	**Potential Funding Source**	HMGP		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	**2025 Update:** The City is underway with a program to remove invasive species along the channel corridor and replant along Onondaga Creek. The program will continue in 2025 and beyond based on funding.		

Mitigation Action	Conduct dredging and cleaning of Hopper Brook, Furnace Brook, Spring Brook, and Cold Brook to remove sediment in channel and vegetation overgrowth to increase flow capacity.				
Action Number	CS-8	**Goal(s) Addressed**	1, 4	**Prioritization Score**	9/15
Year Added to Plan	2013	**Timeline** *(estimated)*	1 to 3 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated	Flood, Severe Weather				
Project Status	In Progress/Not Yet Completed	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Syracuse Engineering Department, City of Syracuse Department of Public Works	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Medium	**Potential Funding Source**	New York State Water Quality Improvement Project (WQIP) Program grants		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	**2025 Update:** Dredging of Cold Brook was completed in 2024. Furnace Brook channel cleanup and repair is funded and planned for 2025. The City continues to assess other streams.		

Mitigation Action	Conduct regular cleaning and inspections of catch basins throughout the City to ensure stormwater management capacity is adequate.				
Action Number	CS-9	**Goal(s) Addressed**	1, 3	**Prioritization Score**	9/15
Year Added to Plan	2013	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	Medium
Hazard(s) Mitigated		Flood, Severe Weather			
Project Status		Continuous	If *Discontinued*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	City of Syracuse Engineering Department, City of Syracuse Department of Public Works		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Low	**Potential Funding Source**	Local Budgeted Funds (Staff Time), New York State Water Quality Improvement Project (WQIP) Program grants		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	Although this is an ongoing capability, additional funding can support the expansion of this program.		

Mitigation Action	Remove or raise the abandoned bridge at Jefferson Street over Onondaga Creek because it is below the base flood elevation, and it will reduce constriction and increase channel conveyance.				
Action Number	CS-10	**Goal(s) Addressed**	1, 3	**Prioritization Score**	7/15
Year Added to Plan	2013	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated		Flood, Severe Weather			
Project Status		No Progress/Not Yet Started	If *Discontinued*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	City of Syracuse Engineering Department, City of Syracuse Planning and Sustainability		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	High	**Potential Funding Source**	New York Environmental Bond Act		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	**2025 Update:** The City could not purchase the bridge from private owner. Bridge removal will continue to be assessed for feasibility.		

Mitigation Action	Participate in Repetitive Loss and Severe Repetitive Loss outreach and education activities for property owners. This annual outreach will increase awareness of flood risks along streams within the City, and provide greater awareness of safety measures to implement and available flood insurance programs.				
Action Number	CS-11	**Goal(s) Addressed**	2	**Prioritization Score**	9/15
Year Added to Plan	2013	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	Medium
Hazard(s) Mitigated	Flood				
Project Status	Continuous	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Low	**Potential Funding Source**	Local Budgeted Funds (Staff Time)		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	The City disseminates over 200 letters annually to repetitive loss properties and nearby properties in the Repetitive Loss Areas. The letters explain flooding risks and availability of flood insurance.		

Mitigation Action	Participate in Repetitive Loss (RL) and Severe Repetitive Loss (SLR) annual outreach and education activities for property owners at [redacted] Syracuse, NY 13224.				
Action Number	CS-12	**Goal(s) Addressed**	N/A	**Prioritization Score**	N/A
Year Added to Plan	2013	**Timeline** *(estimated)*	N/A	**Implementation Priority**	N/A
Hazard(s) Mitigated	Flood				
Project Status	Discontinued	If *Discontinued*, provide reason.	Mitigation action CS-11 addresses all current and future RL and SRL properties.		
Benefits *(Loss Avoided)*	N/A				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	N/A	**Potential Funding Source**	N/A		
Critical Facility *(Critical Facility located in 1% floodplain?)*	N/A	**Additional Details** *(optional)*			

Mitigation Action	Participate in Repetitive Loss (RL) and Severe Repetitive Loss (SLR) annual outreach and education activities for property owners at [redacted] Syracuse, NY 13224.				
Action Number	CS-13	**Goal(s) Addressed**	N/A	**Prioritization Score**	N/A
Year Added to Plan	2013	**Timeline** *(estimated)*	N/A	**Implementation Priority**	N/A
Hazard(s) Mitigated	Flood				
Project Status	Discontinued	If *Discontinued*, provide reason.	Mitigation action CS-11 addresses all current and future RL and SRL properties.		
Benefits *(Loss Avoided)*	N/A				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	N/A	**Potential Funding Source**	N/A		
Critical Facility *(Critical Facility located in 1% floodplain?)*	N/A	**Additional Details** *(optional)*			

Mitigation Action	Participate in Repetitive Loss (RL) and Severe Repetitive Loss (SLR) annual outreach and education activities for property owners at [redacted] Syracuse, NY 13224.				
Action Number	CS-14	**Goal(s) Addressed**	N/A	**Prioritization Score**	N/A
Year Added to Plan	2013	**Timeline** *(estimated)*	N/A	**Implementation Priority**	N/A
Hazard(s) Mitigated	Flood				
Project Status	Discontinued	If *Discontinued*, provide reason.	Mitigation action CS-11 addresses all current and future RL and SRL properties.		
Benefits *(Loss Avoided)*	N/A				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	N/A	**Potential Funding Source**	N/A		
Critical Facility *(Critical Facility located in 1% floodplain?)*	N/A	**Additional Details** *(optional)*			

Mitigation Action	Participate in Repetitive Loss (RL) and Severe Repetitive Loss (SLR) annual outreach and education activities for property owners at [redacted] Syracuse, NY 13224.				
Action Number	CS-15	**Goal(s) Addressed**	N/A	**Prioritization Score**	N/A
Year Added to Plan	2013	**Timeline** *(estimated)*	N/A	**Implementation Priority**	N/A
Hazard(s) Mitigated	Flood				
Project Status	Discontinued	If *Discontinued*, provide reason.	Mitigation action CS-11 addresses all current and future RL and SRL properties.		
Benefits *(Loss Avoided)*	N/A				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	N/A	**Potential Funding Source**	N/A		
Critical Facility *(Critical Facility located in 1% floodplain?)*	N/A	**Additional Details** *(optional)*			

Mitigation Action	Participate in Repetitive Loss (RL) and Severe Repetitive Loss (SLR) annual outreach and education activities for property owners at [redacted] Syracuse, NY 13206.				
Action Number	CS-16	**Goal(s) Addressed**	N/A	**Prioritization Score**	N/A
Year Added to Plan	2013	**Timeline** *(estimated)*	N/A	**Implementation Priority**	N/A
Hazard(s) Mitigated	Flood				
Project Status	Discontinued	If *Discontinued*, provide reason.	Mitigation action CS-11 addresses all current and future RL and SRL properties.		
Benefits *(Loss Avoided)*	N/A				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	N/A	**Potential Funding Source**	N/A		
Critical Facility *(Critical Facility located in 1% floodplain?)*	N/A	**Additional Details** *(optional)*			

Mitigation Action	Develop and maintain a detailed inventory of critical facilities based upon FEMA's Comprehensive Data Management System (CDMS).				
Action Number	CS-17	**Goal(s) Addressed**	2	**Prioritization Score**	14/15
Year Added to Plan	2013	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Drought, Earthquake, Heat Wave/Extreme Heat, Flood, Geological Hazards, Harmful Algal Bloom, Invasive Species and Infestation, Severe Weather, Winter Weather, Wildfire				
Project Status	No Progress/No Yet Started	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	City of Syracuse Department of Public Works, Onondaga County Department of Planning		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Medium	**Potential Funding Source**	Local Budgeted Funds (Staff Time), HMGP		
Critical Facility *(Critical Facility located in 1% floodplain?)*	Yes	**Additional Details** *(optional)*			

Mitigation Action	Extend the water intakes in Skaneateles Lake into deeper water of approximately 60 feet (the shallowest water intake is currently located at a depth of 20 feet). This extension will allow for a greater margin of safety by allowing the chlorine gas that is injected at the water intake additional contact time to inactivate microcystin.				
Action Number	CS-18	**Goal(s) Addressed**	1, 3	**Prioritization Score**	N/A
Year Added to Plan	2019	**Timeline** *(estimated)*	N/A	**Implementation Priority**	N/A
Hazard(s) Mitigated	Harmful Algal Bloom				
Project Status	Discontinued	If *Discontinued*, provide reason.	Additional lake monitoring results indicate that an intake extension would not decrease turbidity.		
Benefits *(Loss Avoided)*	N/A				
Lead Agency / Organization	City of Syracuse Water Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	N/A	**Potential Funding Source**	N/A		
Critical Facility *(Critical Facility located in 1% floodplain?)*	N/A	**Additional Details** *(optional)*			

Mitigation Action	Upsize storm sewer capacity and reduce stormwater runoff in the Eastwood and Sedgewick communities.				
Action Number	CS-19	**Goal(s) Addressed**	1, 3	**Prioritization Score**	7/15
Year Added to Plan	2019	**Timeline** *(estimated)*	5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated		Flood, Severe Weather			
Project Status		In Progress/Not Yet Completed	If *Discontinued*, provide reason.	N/A	
Benefits *(Loss Avoided)*		High			
Lead Agency / Organization	City of Syracuse Engineering Department		**Supporting Agency / Organization** *(If applicable)*	Onondaga County Water Environmental Protection	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	High	**Potential Funding Source**	New York State Environmental Facilities Corporation (NYSEFC) funds, HMGP		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	**2025 Update:** The City applied for NYSEFC funding in June 2024 and is ready to begin the design and construction phases of this project if grant funds are secured.		

Mitigation Action	Reduce Onondaga Creek peak discharges in three (3) phases: **Phase 1:** Conduct a Hydraulic Study to determine the amount that the Arsenal Park tract could reduce Onondaga Creek peak discharges and how many structures and residents would be removed from the SFHA. A benefit cost analysis should be included. This alternative could include diversion/detention and infiltration into newly developed natural and wetland areas. The tract is currently privately owned but initial discussions with the owner indicate sale is possible. The Study would be submitted to FEMA, USACE, and NYSDEC for review of the proposed concept. Sediment capture from upstream sources could also be considered as part of the design. **Phase 2:** Engineering Design of Arsenal Park Flood Risk Reduction Project. An environmental assessment would be required. **Phase 3:** Construction of the Arsenal Park Flood Risk Reduction Project and submission of new Hydraulic Study to FEMA for FIRM revisions.				
Action Number	CS-20	**Goal(s) Addressed**	1, 3, 4, 5	**Prioritization Score**	10/15
Year Added to Plan	2019	**Timeline** *(estimated)*	5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated	Flood				
Project Status	In Progress/Not Yet Completed	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	High	**Potential Funding Source**	New York State Environmental Facilities Corporation (NYSEFC) funds, New York Environmental Bond Act funds, HMGP, BRIC		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	**2025 Update:** The Hydraulic study was completed in 2024; the benefit-cost analysis and study report are under review and a public meeting is planned for 2025. The Study was funded through a PDM grant.		

Mitigation Action	Develop and maintain emergency operations plans for weather-related response, including a debris management plan.				
Action Number	CS-21	**Goal(s) Addressed**	5, 6	**Prioritization Score**	9/15
Year Added to Plan	2019	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated		Flood, Severe Weather, Winter Weather			
Project Status		In Progress/Not Yet Completed	If *Discontinued*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Medium			
Lead Agency / Organization	City of Syracuse Department of Public Works, City of Syracuse Parks, Recreation and Youth Programs, City of Syracuse Engineering Department		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Low	**Potential Funding Source**	Local Budgeted Funds (Staff Time), HMGP, BRIC		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*			

Mitigation Action	Conduct a cyclical inventory of 1/7th of the street tree population (approximately 5,200 trees, annually) to identify highest risk trees to manage and establish a continuous pruning program to reduce risk and improve tree architecture.				
Action Number	CS-22	**Goal(s) Addressed**	4	**Prioritization Score**	14/15
Year Added to Plan	2019	**Timeline** *(estimated)*	4 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated		Severe Weather, Winter Weather			
Project Status		In Progress/Not Yet Completed	If *Discontinued*, provide reason.	N/A	
Benefits *(Loss Avoided)*					
Lead Agency / Organization	City of Syracuse Parks, Recreation and Youth Programs, City of Syracuse Department of Public Works		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Low	**Potential Funding Source**	Local Budgeted Funds (Staff Time), HMGP		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	The City adopted a Master Tree Plan in 2022 and continues to conduct inventory on tree stock throughout the City.		

Mitigation Action	Conduct a Hydraulic Study for Coldbrook which will provide guidance to acquire land and develop a flood storage area/detention basin for Coldbrook and upsize culverts downstream.				
Action Number	CS-23	**Goal(s) Addressed**	1, 4	**Prioritization Score**	12/15
Year Added to Plan	2025	**Timeline** *(estimated)*	1 to 5 Years	**Implementation Priority**	High
Hazard(s) Mitigated		Flood, Severe Weather			
Project Status		New	If *Discontinued*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Medium			
Lead Agency / Organization	City of Syracuse Engineering Department, City of Syracuse Department of Public Works		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	High	**Potential Funding Source**	HMGP, FMA, BRIC, New York State Environmental Bond Act funds, City Capital Funds		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*			

Mitigation Action	Perform inspections and preventative maintenance for protection of the Woodland Reservoir Dam and Skaneateles Lake Dam.				
Action Number	CS-24	**Goal(s) Addressed**	1, 4	**Prioritization Score**	11/15
Year Added to Plan	2025	**Timeline** *(estimated)*	Ongoing	**Implementation Priority**	High
Hazard(s) Mitigated	Flood				
Project Status	New	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	Medium				
Lead Agency / Organization	City of Syracuse Water Department	**Supporting Agency / Organization** *(If applicable)*	N/A		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Medium	**Potential Funding Source**	Local Budgeted Funds (Staff Time), New York State Environmental Facilities Corporation (NYSEFC) funds		
Critical Facility *(Critical Facility located in 1% floodplain?)*	Yes	**Additional Details** *(optional)*			

Mitigation Action	Encourage and support the retrofit of the Onondaga Country Metropolitan Plant (owned by the Onondaga County Water Environment Protection) to the 500-year flood level by discussing mitigation options with the Plant owner.				
Action Number	CS-25	**Goal(s) Addressed**	1, 3	**Prioritization Score**	9/15
Year Added to Plan	2025	**Timeline** *(estimated)*	3 to 6 Months	**Implementation Priority**	Medium
Hazard(s) Mitigated		Flood, Severe Weather			
Project Status		New	If *Discontinued*, provide reason.	N/A	
Benefits *(Loss Avoided)*		Medium			
Lead Agency / Organization	City of Syracuse Code Enforcement (Floodplain Administrator)		**Supporting Agency / Organization** *(If applicable)*	N/A	
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	Low	**Potential Funding Source**	General Fund (Staff Time)		
Critical Facility *(Critical Facility located in 1% floodplain?)*	Yes	**Additional Details** *(optional)*	The Plant is located in the 100-year floodplain. The City does not have jurisdiction over the facility; therefore, the City will contact the facility manager and discuss options for retrofitting the facility.		

Mitigation Action	Upsize storm sewer capacity and reduce stormwater runoff in the Outer Eastwood community.				
Action Number	CS-26	**Goal(s) Addressed**	1, 3	**Prioritization Score**	7/15
Year Added to Plan	2025	**Timeline** *(estimated)*	5 Years	**Implementation Priority**	Medium
Hazard(s) Mitigated	Flood, Severe Weather				
Project Status	New	If *Discontinued*, provide reason.	N/A		
Benefits *(Loss Avoided)*	High				
Lead Agency / Organization	City of Syracuse Engineering Department	**Supporting Agency / Organization** *(If applicable)*	Onondaga County Water Environmental Protection		
Additional Participating Jurisdictions *(If applicable)*	N/A				
Estimated Cost	High	**Potential Funding Source**	New York State Environmental Facilities Corporation (NYSEFC) funds		
Critical Facility *(Critical Facility located in 1% floodplain?)*	No	**Additional Details** *(optional)*	The City applied for NYSEFC funding in June 2024 and initiated the design of this project.		

APPENDIX A. HAZARD MAPS

The following hazard maps have been generated for the City of Syracuse – [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 the City of Syracuse has significant vulnerability.

Figure #	[Enter map name and description, if applicable]
Figure #	[Enter map name and description, if applicable]
Figure #	[Enter map name and description, if applicable]
Figure #	[Enter map name and description, if applicable]
Figure #	[Enter map name and description, if applicable]
Figure #	[Enter map name and description, if applicable]
Figure #	[Enter map name and description, if applicable]
Figure #	[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.

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: City of Syracuse

Name of Authorized Representative:

Lisa Schmidt

Signature of Authorized Representative:

Lisa Schmidt Digitally signed by Lisa Schmidt Date: 2024.06.18 14:46:20 -04'00'

Primary Point-of-Contact (POC):

Name: Lisa Schmidt
Title: Risk & Safety Manager
Department: HR
Phone Number: 315-448-4733
Email: LSCHMIDT@SYR.GOV

Secondary Point-of-Contact (POC):

Name: Corey Driscoll-Dunham
Title: Chief Operations Officer
Department: Mayor's Office
Phone Number: 315-448-8051
Email: cdunham@syr.gov

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]