



9.24 City of Rochester

This section presents the jurisdictional annex for the City of Rochester that provides resources and information to assist public and private sectors to reduce losses from future hazard events. This annex is not guidance of what to do when a disaster occurs. Rather, this annex concentrates on actions to reduce or eliminate damage to property and people that can be implemented prior to a disaster. Information presented includes a general overview of the municipality, who in the City participated in the planning process, an assessment of the City of Rochester’s risk and vulnerability, the different capabilities used in the City, and an action plan that will be implemented to achieve a more resilient community.

9.24.1 Hazard Mitigation Planning Team

The City of Rochester identified the hazard mitigation plan primary and alternate points of contact and developed this plan over the course of several months with input from many City departments, including the Fire Department, Permit Office, and the Bureau of Buildings and Zoning. The Rochester Fire Department represented the community on the Monroe County Hazard Mitigation Plan Planning Partnership and supported the local planning process requirements by securing input from persons with specific knowledge to enhance the plan. All departments were asked to contribute to the annex development through reviewing and contributing to the capability assessment, reporting on the status of previously identified actions, and participating in action identification and prioritization.

The following table summarizes municipal officials that participated in the development of the annex and in what capacity. Additional documentation on the municipality’s planning process through Planning Partnership meetings is included in Volume 1, Section 3 (Planning Process) and Appendix C (Meeting Documentation).

Table 9.24-1. Hazard Mitigation Planning Team

Primary Point of Contact	Alternate Point of Contact
Name/Title: Mark Hudson, Deputy Chief of Training Address: 1190 Scottsville Road, Ste. 214, Rochester NY 14624 Phone Number: (585)-753-3730 Email: mark.hudson@cityofrochester.gov	Name/Title: Captain Jamie Renner, Rochester Fire Department, Special Operations Unit Address: 1190 Scottsville Road, Ste. 214, Rochester NY 14624 Phone Number: (585) 753-3743 Email: Jamie.Renner@cityofrochester.gov
Alternate Point of Contact	NFIP Floodplain Administrator
Name/Title: Dan Arena, Code Compliance Coordinator, NBD Address: 30 Church Street Rochester, NY 14614-1290 Phone Number: 585-428-7122 Email: Daniel.Arena@CityofRochester.Gov	Name/Title: Suzanne McSain, Permit Office Manager Address: 30 Church Street Rochester, NY 14614-1290 Phone Number: (585) 428-7291 Email: Suzanne.mcsain@cityofrochester.gov
Additional Contributors	
Name/Title: Captain Jamie Renner, Rochester Fire Department, Special Operations Unit Method of Participation: Provided data and information	
Name/Title: Casmic J. Reid, Plans Examiner, Bureau of Buildings and Zoning Method of Participation: Provided data and information, contributed to mitigation strategy	
Name/Title: Karen St. Aubin, Bureau of Operations Method of Participation: Contributed to mitigation strategy	

9.24.2 Municipal Profile

The City of Rochester is north of the center of Monroe County, about 65 miles east-northeast of Buffalo and about 75 miles west of Syracuse. The City sits on Lake Ontario's southern shore, and is bisected by the Genesee River, which is the most significant local waterway along with Allen Creek, West Branch Red Creek, Irondequoit Bay, and Lake Ontario.





Rochester became the county seat of Monroe County in 1821, 2 years before the Erie Canal aqueduct over the Genesee River was completed in the City’s downtown, and the Erie Canal east to the Hudson River was opened. According to the 2010 U.S. Census, the City encompasses 35.8 square miles of land and 1.3 square miles of water.

Rochester has a number of neighborhoods and recognized communities with various neighborhood associations. Neighborhoods within the City include the following:

- 19th Ward
- 14621 Community
- Beechwood
- Browncroft
- Cascade District
- Cobbs Hill
- Charlotte
- Corn Hill
- Dewey
- Dutchtown
- Edgerton
- Ellwanger-Barry
- German Village
- Grove Place
- High Falls District
- Highland Park
- Dutchtown
- Maplewood (10th Ward)
- Marketview Heights
- Mt. Read
- North Winton Village
- Neighborhood of the Arts (NOTA)
- Otis-Lyell
- Park Avenue
- Plymouth-Exchange
- Southwest
- East End
- South Wedge
- Swillburg
- Susan B. Anthony
- University-Atlantic
- Upper Monroe

The City of Rochester is home to numerous cultural, academic, and religious institutions. The City is served by a robust transportation system, including numerous regional and interstate highways, freight and passenger railroads, and the Greater Rochester International Airport. The Port of Rochester on Lake Ontario offers marine freight service and is connected to the Atlantic Ocean via the Saint Lawrence Seaway.

According to the U.S. Census, the 2020 population for the City of Rochester was 211,328, a 0.4 percent increase from the 2010 Census (210,565). Data from the 2020 American Community Survey 5-year Estimates indicate that 6.2 percent of the population is 5 years of age or younger, 11.3 percent is 65 years of age or older, 17.9 percent have disabilities, and 28.4 percent are below the poverty threshold. 2.7 percent of households are non-English speaking. Communities must deploy a support system that enables all populations to safely reach shelters or to quickly evacuate a hazard area.

9.24.3 Jurisdictional Capability Assessment and Integration

The City of Rochester performed an inventory and analysis of existing capabilities, plans, programs, and policies that enhance its ability to implement mitigation strategies. Volume 1, Section 6 (Capability Assessment) describes the components included in the capability assessment and their significance for hazard mitigation planning. The jurisdictional assessment includes the following analyses:

- An assessment of legal and regulatory capabilities.
- Development and permitting capabilities.
- An assessment of administrative and technical capabilities.
- An assessment of fiscal capabilities.
- An assessment of education and outreach capabilities.
- Classification under various community mitigation programs.
- The community’s adaptive capacity to withstand hazard events.



For a community to succeed in reducing long-term risk, hazard mitigation must be integrated into the day-to-day local government operations. As part of the hazard mitigation analysis, planning/policy documents were reviewed, and each jurisdiction was surveyed to obtain a better understanding of their progress toward plan integration. The updated mitigation strategy provided an opportunity for the City of Rochester to identify opportunities for integration of mitigation concepts that can be incorporated into municipal procedures.

Planning, Legal, and Regulatory Capability and Integration

The table below summarizes the regulatory tools that are available to the City of Rochester. The comment field provides information as to how the capability integrates hazard mitigation and risk reduction.

Table 9.24-2. Planning, Legal, and Regulatory Capability and Integration

	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Codes, Ordinances, & Regulations				
Building Code	Yes	Chapter 39 Building Code	State and Local	Bureau of Buildings and Zoning
<i>How does this reduce risk?</i> Building codes are strictly enforced to prepare new and renovated buildings as well as possible for hazard-related incidents. The City complies with New York State Uniform Fire Prevention and Building Code (the Uniform Code) and the State Energy Conservation Construction Code (the Energy Code).				
Zoning/Land Use Code	Yes	Chapter 120 Zoning	Local	Planning Commission
<i>How does this reduce risk?</i> This chapter establishes and implements regulatory powers to the ends that adequate light, pure air, convenient access and safety from fire, flood and other dangers may be secured; that the taxable value of land and buildings throughout the City may be conserved and enhanced; that congestion in the public streets may be lessened or avoided; that the hazards to persons and damage to property resulting from the accumulation or runoff of stormwater may be lessened or avoided; that sites, areas and structures of historical, architectural and aesthetic importance may be preserved; and that the public health, safety, comfort, morals and welfare may otherwise be promoted. The City of Rochester’s zoning code includes districts and standards pertaining to mitigation of hazards. These include the open space district, citywide and neighborhood-specific design standards and guidelines, and review authorities.				
Subdivision Ordinance	Yes	Chapter 128 Land Subdivision Regulations	Local	Planning Commission
<i>How does this reduce risk?</i> The City’s Planning Commission is tasked with site plan/subdivision review. The purpose of these regulations shall be to provide rules, regulations and standards to guide land subdivision within the City of Rochester in order to promote the public health, safety, convenience and general welfare of the City. They shall be administered to ensure the orderly growth and development, conservation, protection and proper use of land and adequate provision for circulation, utilities and services and to ensure that land utilized for building purposes shall be without danger to health or peril from fire, flood or other menace and that provision is made for adequate light and air, fire protection, recreation areas and other amenities.				
Site Plan Ordinance	Yes	Chapter 112 Waterfront Consistency Review Ordinance	Local and County	Site Plan Review Committee
<i>How does this reduce risk?</i> Site Plan Review assesses a projects elements of design and function, identifies necessary referrals to other public agencies, and often includes project recommendations. The Manager of Zoning, or their designee, is authorized under the City Code to approve all site plans. The Manager regularly relies on the recommendations of the Site Plan Review Committee, which consists of professional staff from various City agencies. No public hearing is required for approval. Larger or more complex proposals which meet one or more “Major Site Plan Review” triggers are referred to the City’s Project Review Committee (PRC), consisting of urban design specialists and City staff. Final Site Plan Approval establishes that the project or proposal complies with all Zoning requirements, any conditions required, and final steps for completing the Building Permit. Updated drawings are often required to reflect all aspects of the approval.				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Stormwater Management Ordinance	Yes	Chapter 39 Building Code Article IV Site Preparation and Stormwater Pollution Prevention	Local	Commissioner of Neighborhood and Business Development
<p><i>How does this reduce risk?</i></p> <p>The purpose of this Part is to safeguard public health, protect property, prevent damage to the environment and promote the public welfare by guiding, regulating, and controlling the design, construction, use, and maintenance of any development or other activity which disturbs or breaks the topsoil or results in the movement of earth on land in the City of Rochester. It seeks to meet those purposes by achieving the following objectives:</p> <ul style="list-style-type: none"> (1) Require land disturbance activities to conform to the substantive requirements of the New York State Department of Environmental Conservation State Pollutant Discharge Elimination System (SPDES) general permit for construction activities or as amended or revised; (2) Meet the requirements of minimum measures 4 and 5 of the SPDES general permit for stormwater discharges from municipal separate stormwater sewer systems (MS4s), Permit No. GP-02-02 or as amended or revised; (3) Minimize increases in stormwater runoff from land disturbance activities in order to reduce flooding, siltation, increases in stream temperature, and stream bank erosion and maintain the integrity of stream channels; (4) Minimize increases in pollution caused by stormwater runoff from land disturbance activities which would otherwise degrade local water quality; (5) Minimize the total annual volume of stormwater runoff which flows from any specific site during and following development to the maximum extent practicable; and (6) Reduce stormwater runoff rates and volumes, soil erosion and nonpoint source pollution, wherever possible, through stormwater management practices and to ensure that these management practices are properly maintained and eliminate threats to public safety. 				
Post-Disaster Recovery/ Reconstruction Ordinance	No	-	-	-
<p><i>How does this reduce risk?</i></p>				
Real Estate Disclosure	Yes	Property Condition Disclosure Act, NY Code - Article 14 §460-467	State	NYS Department of State, Real Estate Agent
<p><i>How does this reduce risk?</i></p> <p>In addition to facing potential liability for failing to disclose under the exceptions to “caveat emptor,” a home seller must make certain disclosures under the law or pay a credit of \$500 to the buyer at closing. While the PCDA requires a seller to complete a standardized disclosure statement and deliver it to the buyer before the buyer signs the final purchase contract, in practice, most home sellers in New York opt not to complete the statement and instead pay the credit.</p>				
Growth Management	Yes	Chapter 130 Comprehensive Plan	Local	Planning Commission
<p><i>How does this reduce risk?</i></p> <p>The Comprehensive Plan, or any part thereof, shall be considered an official statement of the City of Rochester with respect to the existing and developing character of various areas of the City; the proper objectives, standards and direction for the future maintenance, growth and development of the City; the means to be employed to protect existing character or development and to encourage future development that will be in the best interest of the City; and the actions and programs to be undertaken by the City with respect to its future maintenance and development. The Comprehensive Plan shall serve as a guide and resource for City officials and agencies in the performance of their duties but, except as otherwise provided in this chapter and the codes and ordinances of the City, shall not be binding upon them.</p>				
Environmental Protection Ordinance	Yes	Chapter 48 Environmental Review	Local	Rochester Environmental Commission
<p><i>How does this reduce risk?</i></p> <p>The basic purpose of this chapter is to incorporate consideration of environmental factors into the existing decisionmaking processes of City government at the earliest possible time. It is the intent of this chapter that all agencies of City government conduct their affairs with an awareness that they are stewards of the air, water, land and living resources and that they have an obligation to protect the environment for the use and enjoyment of this and all future generations. No decision to carry out, approve or fund any action subject to review pursuant to this chapter shall be made by any unit of City government until there has been full compliance with all applicable requirements of this chapter.</p>				
Flood Damage Prevention Ordinance	Yes	Chapter 56 Flood Damage Prevention	Federal, State, County and Local	Commissioner of Neighborhood and Business Development
<p><i>How does this reduce risk?</i></p>				



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<p>It is the purpose of this chapter to promote the public health, safety, and general welfare and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:</p> <ul style="list-style-type: none"> (1) 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; (2) Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; (3) Control the alteration of natural floodplains, stream channels, and natural protective barriers which are involved in the accommodation of floodwaters; (4) Control filling, grading, dredging and other development which may increase erosion or flood damages; (5) Regulate the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards to other lands; and (6) Qualify for and maintain participation in the National Flood Insurance Program. <p>New construction is required to be elevated/protected to 2 feet above the base flood elevation.</p>				
Wellhead Protection	No	-	-	-
<i>How does this reduce risk?</i>				
Emergency Management Ordinance	Yes	Chapter 7 Continuity of Government; Chapter 19 Public Safety; Chapter 93 Public Emergencies, Restricted Conduct in Time of	Local	Police and Fire Departments
<i>How does this reduce risk?</i>				
<p>Chapter 7 establishes emergency interim successors in the event of a disaster event.</p> <p>Chapter 19 establishes agreements for fire department aid outside of the City and the sections of the Police department.</p> <p>Chapter 93 establishes emergency powers to the Mayor in the event of a public emergency.</p>				
Climate Change Ordinance	No	-	-	-
<i>How does this reduce risk?</i>				
Other	Yes	Chapter 43A Coastal High Hazard Areas	Local	Coastal Erosion Hazard Board of Review
<i>How does this reduce risk?</i>				
<p>The City of Rochester hereby assumes the responsibility to implement and administer a coastal erosion management program within its boundaries pursuant to Article 34 of New York State Environmental Conservation Law. To this end, this chapter is enacted to:</p> <ul style="list-style-type: none"> A. Establish standards and procedures for minimizing and preventing damage to structures from coastal flooding and erosion and to protect natural protective features and other natural resources. B. Regulate in coastal areas subject to coastal flooding and erosion, land use and development activities so as to minimize or prevent damage or destruction to man-made property, natural protective features or other natural resources and to protect human life. C. Regulate new construction or placement of structures in order to place them a safe distance from areas of active erosion and the impacts of coastal storms to ensure that these structures are not prematurely destroyed or damaged due to improper siting, as well as to prevent damage to natural protective features and other natural resources. D. Restrict public investment in services, facilities or activities which are likely to encourage new permanent development in erosion hazard areas. E. Regulate the construction of erosion protection structures in coastal areas subject to serious erosion, to assure that when the construction of erosion protection structures is justified, their construction and operation will minimize or prevent damage or destruction to man-made property, private and public property, natural protective features and other natural resources. 				
Planning Documents				
Comprehensive Plan	Yes	Rochester 2034 Moving Forward, 2019	Local	City Council
<i>How does this reduce risk?</i>				
<p>Rochester 2034 is a 15-year comprehensive plan to improve our community leading up to our 200th birthday. The Plan covers a wide variety of topics, from housing and transportation to economic growth and historic preservation. Each topic includes Goals and Strategies that are aligned with an overarching community Vision and set of Guiding Principles. Overall, the Plan presents a blueprint for growth and development, with several main themes carried throughout:</p>				





	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<ul style="list-style-type: none"> Positioning Rochester for Growth Connecting Land-Use and Transportation Placemaking Social and Economic Equity 				
Capital Improvement Plan	Yes	Capital Improvements Plan	Local	Office of Management & Budget
<i>How does this reduce risk?</i>				
The Capital Improvements Plan is updated annually on October 1.				
Disaster Debris Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Floodplain Management or Watershed Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Stormwater Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Open Space Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Urban Water Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Habitat Conservation Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Economic Development Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Shoreline Management Plan	Yes	Article 34, Environmental Conservation Law, Coastal Erosion Hazard Areas 6 NYCRR Part 505, Coastal Erosion Management Regulations; Local Waterfront Revitalization Program, 2015	State, Local	Administration
<i>How does this reduce risk?</i>				
<p>This LWRP is an update to the City of Rochester’s original LWRP from 1990. The plan references the Port of Rochester and Genesee River Harbor Management Plan and considers it an appendix to the plan. As with the Harbor Management Plan, the LWRP considers potential hazard areas and possible health impacts of local waterways on City residents. The major areas of focus for the program are the Lake Ontario waterfront, the Genesee River waterfront, and the Erie Canal waterfront. Relevant recommendations from the LWRP include:</p> <ol style="list-style-type: none"> 1. Improvement of Durand Beach Water Quality 2. Wave Surge Mitigation Project (Phase 2) 3. Site Remediation along River Gorge 4. Genesee Valley Park Bridge Improvements 5. Dredging 6. Stormwater Remediation 7. Genesee River Natural Resource Planning and Projects. 				
Community Wildfire Protection Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Community Forest Management Plan	No	-	-	-
<i>How does this reduce risk?</i>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
Transportation Plan	Yes	Rochester 2034 Moving Forward, 2018 Transit-Supportive Corridors Study	Local	
<i>How does this reduce risk?</i> The purpose of this project was to identify land use, development, and zoning strategies that can inform the City’s Comprehensive Plan, Rochester 2034. Recommended strategies were designed to promote a future land use pattern and regulatory framework that encourages sustainable, transit-supportive development; denser, more pedestrian-scaled neighborhoods; improved access to jobs, parks and open space; and increased mobility options and transportation choices for residents and visitors.				
Agriculture Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Climate Action/ Resiliency/Sustainability Plan	Yes	Rochester 2034 Moving Forward, Appendix I 2017 Rochester Climate Action Plan	Local	City Council
<i>How does this reduce risk?</i> The City of Rochester’s Office of Energy and Sustainability has created a community-wide Climate Action Plan (CAP) to provide a framework for sustainable projects and actions that aligns with the Finger Lakes Regional Sustainability Plan. Endorsed by City Council in May 2017, the City of Rochester Climate Action Plan has a goal to reduce greenhouse gas emissions by 40% from 2010 levels by 2030. In order to achieve this goal, the Plan outlines 35 implementation actions divided into five focus areas. The five focus areas revolve around residential, commercial, and industrial sectors. These include: <ul style="list-style-type: none"> • Energy Use and Supply • Transportation • Waste and Materials Management • Clean water • Land use 				
Tourism Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Business/ Downtown Development Plan	Yes	Rochester 2034 Moving Forward, Commercial Corridor Study	Local	Administration
<i>How does this reduce risk?</i> This study is intended to inform neighborhood revitalization and business development strategies in the City of Rochester. The information and analysis in this document will guide the City in adopting market-driven approaches that recognize trends, challenges, and opportunities within its CDBG-eligible commercial corridors and the city as a whole. through the adoption of Rochester 2034 - the comprehensive plan for the city of Rochester, the City will identify strategic approaches and new initiatives responding to these conditions, resulting in vibrant commercial corridors where businesses can thrive and the needs of area residents can be met.				
Other	Yes	Northeast Quadrant Strategic Plan, 2010-2011	Local	Department of Neighborhood and Business Development
<i>How does this reduce risk?</i> The City of Rochester Department of Neighborhood and Business Development (NBD) consists of four teams, one for each of the four City quadrants. The Northeast Quadrant Team developed this strategy to identify community assets, assess and analyze strengths and opportunities in the quadrant, and identify strategic actions. The plan describes current land use development in the quadrant, and identifies the most pressing goals for the quadrant as public safety, beautification, blight reduction, regulatory compliance, and capacity building.				
Other	Yes	Genesee Valley Park West Master Plan, 2015	Local	DES, Department of Recreation and Youth Services, and the Genesee Waterways Center, Inc.
<i>How does this reduce risk?</i> The City of Rochester Department of Environmental Services, the City of Rochester, Department of Recreation and Youth Services, and the Genesee Waterways Center, Inc. recently developed a master plan for the part of the Genesee Valley Park west of the Genesee River. The park is one of the three original parks in the Rochester Park System, and is designed primarily for recreational activities. The master plan inventories and analyzes the park’s current condition, including equipment, infrastructure, and vegetation; conducts a historic landscape analysis; studies hydro-geologic conditions of the Genesee River shoreline in the target area; provides alternative schematic designs; and				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
<p>recommends historic landscape treatment and other projects to enhance the park’s overall condition. The master plan includes land use and zoning recommendations for managing hazard risks and directing growth. Some recommendations include:</p> <ol style="list-style-type: none"> 1. Establish a local benchmark of how park land should interface with the river, include green infrastructure, and enhance the ecological recreation experience. Assess and enhance the following: <ol style="list-style-type: none"> a. Stormwater and green infrastructure b. River bank ecology c. Vegetation d. Sedimentation and maintenance 2. Respond to the growing health care and fitness crisis by focusing on wellness and developing new public-private partnerships. 3. Plan facilities and programming to accommodate multi-generational, multi-purpose, and long-term recreation trends. 				
Other	Yes	Port of Rochester and Genesee River Harbor Management Plan, 2016	Local	City of Rochester, Town of Irondequoit
<p><i>How does this reduce risk?</i></p> <p>This plan was developed as a multi-jurisdictional strategy to guide and manage use of waters in the Port of Rochester-Genesee River Harbor. The City deemed the plan necessary because of the Harbor’s location as a regional destination for recreation, its function to stimulate the local economy, and recent redevelopment of the Port of Rochester site. The Harbor Management Plan also complies with the federal Coastal Zone Management Act (CZMA) of 1972, and is a type of Local Waterfront Revitalization Program (LWRP). This plan primarily focuses on Harbor impacts on the City of Rochester, but also applies to a portion of the Town of Irondequoit. The plan considers potential hazard areas, such as floodplains and wetlands, and includes recommendations for managing hazard risks. Some identified issues and opportunities include:</p> <ol style="list-style-type: none"> 1. Issues <ol style="list-style-type: none"> a. Storm surge continues to be an issue reported by Harbor Management Plan stakeholders. Specific impacts of storm surge on the Harbor Management Area (HMA) have not been fully evaluated since the stone revetment was installed along the piers for wave attenuation. Stakeholders have reported that removal of the Hojack Swing Bridge has altered how the surge affects the harbor, further necessitating evaluation of the surge. Storm surge can damage docked boats and render the Genesee River non-navigable. This occasionally limits the Harbor’s ability to function as a Critical Harbor of Refuge during large Nor’easter storms. b. During maintenance activities, such as dredging, utilities that cross the river can be affected. c. Three known but unmarked navigation hazards are in the vicinity of the Harbor: the sunken tug <i>Cheyenne</i>, the west side of the turning basin in Reach G (between the federal navigation channel and the Genesee Riverway Trail footbridge), and the southern dolphin approximately 300 feet upstream of the U.S. Coast Guard Station. Several less prominent hazards are present along the shoreline. d. Evaluation of effectiveness and resiliency of current infrastructure under climate changes and potential lake level changes has not occurred. 2. Opportunities <ol style="list-style-type: none"> a. A collaborative dredging strategy among property owners and agencies could reduce dredging mobilization costs and permit administration. b. Dredged material from the Genesee River is clean enough to be considered for beneficial uses, such as ecosystem restoration. c. Ensuring long-term protection of the River’s riparian areas would contribute to improving water quality in the Harbor and eventual delisting of the Rochester Embayment Area of Concern. d. The U.S. Environmental Protection Agency (EPA) is reviewing the draft Work Plan for Resource Conservation and Recovery Act (RCRA) Facility Investigation and Corrective Measure Study for Operable Unit (OU)-5 Lower Genesee River Area of Concern—determination of contamination levels in the lower 4 miles of the Genesee River, and evaluation of potential effects of contamination on fish, wildlife, and human health. The results will provide additional information about contamination in the HMA, perhaps resulting in remedial efforts in the River. 				
Response/Recovery Planning				
Comprehensive Emergency Management Plan	Yes	City of Rochester Comprehensive Emergency Management Plan	Local	City of Rochester
<p><i>How does this reduce risk?</i></p> <p>A wide variety of natural, technological, and manmade emergencies can result in injury, loss of life, property damage and the disruption of essential public services. The scope of specific hazards and the type/kind of resources required to address significant impacts, often require detailed planning efforts, some of which are included in the appendices to this plan. However, the number of potential hazards and types of emergencies is so extensive that it is not always practical to prepare a plan for each situation or circumstance. The comprehensive emergency management process recognizes that the authorities, leadership, and resources a community uses to manage emergencies are essentially the same for any disaster, therefore, the best approach is to effectively organize the community’s personnel and capabilities in a system designed</p>				



	Jurisdiction has this? (Yes/No)	Citation and Date (code chapter or name of plan, date of enactment or plan adoption)	Authority (local, county, state, federal)	Individual / Department / Agency Responsible
to address all potential hazards. In an all-hazards approach, City leadership and organization, as well as the resources of all partnering jurisdictions and agencies, can be mobilized to address risk reduction, response and recovery for wide variety of hazards.				
In accordance with the New York State Comprehensive Emergency Management Plan (CEMP) ten (10) step process, the City of Rochester CEMP has been developed to serve as a framework for responding to any emergency that builds on actions that reduce or eliminate threats, while also strengthening local resources and capabilities. Furthermore, current guidance sets forth the expectation that communities and government leaders will take steps and implement proactive policies to prevent hazards and reduce risks. Aligned with the comprehensive emergency management process outlined in New York State Executive Law, Article 2-B, the City of Rochester CEMP addresses each of the following phases of comprehensive emergency management, each of which are interrelated phases, where each step interacts in an ongoing cycle, one leading naturally into another.				
The CEMP covers short-term response and long-term recovery to address communications, evacuation, and housing necessary for identified hazards through other sister plans with Monroe County and the Red Cross – Sheltering Plans.				
Continuity of Operations Plan	Yes	City of Rochester Continuity of Operations Plan	Local	City of Rochester
<i>How does this reduce risk?</i> The <i>City of Rochester COOP Plan (Volumes I and II)</i> outlines the City’s continuity policies and activities in four key areas: preparedness, response, recovery, and mitigation. Each area is defined as follows: <ul style="list-style-type: none"> • Preparedness efforts focus on identifying risks, mission-critical department business processes, and systems; recognizing potential continuity problems affecting the department; and taking steps to prevent or mitigate those problems. • Response involves recognizing and responding to an emergency, providing a warning system, identifying protective actions, and ensuring that mission-critical department activities are carried out. • Recovery efforts include conducting short-term and long-term strategies to restore department operations following an emergency, including identifying ways to prevent or mitigate a hazard’s impact on the department. • Mitigation actions will include reviewing mission-critical processes, risks, and potential problems to identify preventive actions to reduce the impact to vital systems, records, and personnel safety. 				
Substantial Damage Response Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Strategic Recovery Planning Report	No	-	-	-
<i>How does this reduce risk?</i>				
Threat & Hazard Identification & Risk Assessment (THIRA)	Yes	Monroe County	County	Monroe County
<i>How does this reduce risk?</i>				
Post-Disaster Recovery Plan	No	-	-	-
<i>How does this reduce risk?</i>				
Public Health Plan	Yes	Monroe County	County	Monroe County
<i>How does this reduce risk?</i>				
Other	Yes	Snow and Ice Master Plan	Local	DES
<i>How does this reduce risk?</i> The Snow and Ice Master Plan is updated annually on October 1.				

Development and Permitting Capability

The table below summarizes the capabilities of the City of Rochester to oversee and track development.

Table 9.24-3. Development and Permitting Capability

Indicate if your jurisdiction implements the following	Yes/No	Comment:
Do you issue development permits?	Yes	-





Indicate if your jurisdiction implements the following	Yes/No	Comment:
<ul style="list-style-type: none"> If you issue development permits, what department is responsible? 	N/A	Bureau of Buildings and Zoning
<ul style="list-style-type: none"> If you do not issue development permits, what is your process for tracking new development? 	N/A	-
Are permits tracked by hazard area? (For example, floodplain development permits.)	Yes	Floodplain development permits
Do you have a buildable land inventory?	Yes	
<ul style="list-style-type: none"> If you have a buildable land inventory, please describe 		City of Rochester GIS portal has both Development Ready Sites listed in a map viewer, along with a separate viewer for Vacant Structures and Vacant Land Inventories. This is accessible in the public facing part of the City of Rochester website.
Describe the level of build-out in your jurisdiction.	N/A	Near built out, urban

Administrative and Technical Capability

The table below summarizes potential staff and personnel resources available to the City of Rochester and their current responsibilities that contribute to hazard mitigation.

Table 9.24-4. Administrative and Technical Capabilities

Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
Administrative Capability		
Planning Board	Yes	The City Planning Commission (CPC) is a seven member citizen commission has jurisdiction and authority in the issuance of Special Permits, subdivision approvals, and a wide range of other matters. The Planning Commission also makes recommendations to City Council regarding Zoning Text and Map amendments.
Zoning Board of Adjustment	Yes	The Zoning Board of Appeals is a seven member citizen board hears requests for Variances to the City’s Zoning Code, and Administrative Appeals of decisions made by the Manager of Zoning.
Planning Department	Yes	The Office of City Planning plays a variety of roles within city government and the community related to policy development and place making.
Mitigation Planning Committee	No	-
Environmental Board/Commission	Yes	The Rochester Environmental Commission (REC) is a seven-member citizen advisory board reviews projects that are Type 1 Actions under the State Environmental Quality Review Act (SEQRA) and require City approval and/or funding. The REC provides recommendations on a project’s potential impacts on the environment. It is important to note that SEQRA considers both the natural (land, water, air, wildlife, etc.) and human made (archeological and historic resources, community character, etc.) environment. The REC also acts as the hearing body when an environmental impact statement (EIS) is prepared for a project. At the conclusion of the environmental impact



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		statement process, they make recommendations on whether the proposal should be approved, approved with modifications, or denied. Lastly, the REC is the appeals body for the Coastal Erosion Hazard Area permitting process.
Open Space Board/Committee	No	-
Economic Development Commission/Committee	Yes	The Department of Neighborhood and Business Development (NBD) provides a wide array of services designed to improve quality of life and create economic opportunities for residents and businesses within the city of Rochester. The Department's major units are Administration and Finance, Business and Housing Development, Planning and Zoning, Neighborhood Preservation and Inspection and Compliance.
Public Works/Highway Department	Yes	The mission of the Department of Environmental Services is to provide a safe, clean and attractive community through the delivery of services. The department consists of the Bureaus of Architecture and Engineering, Operations, Buildings and Parks, Equipment Services and Water.
Construction/Building/Code Enforcement Department	Yes	The City's renewable Certificate of Occupancy (C of O) program is designed to help stabilize and enhance our city neighborhoods by conducting regularly scheduled and ongoing property maintenance inspections. These visual inspections, based on local, state and federal code standards, ensure the preservation of property and the protection of life.
Emergency Management/Public Safety Department	Yes	<p>The Rochester Police Department (RPD) provides public safety services, crime data analysis and collaborates with other law enforcement agencies. The RPD consists of the Administration Bureau and the Operations Bureau.</p> <p>The Rochester Fire Department provides professional services for life preservation, incident stabilization and property conservation. The Department's mission is to protect life and property through fire suppression, emergency medical services, technical rescue, fire prevention, disaster preparedness and public education.</p>
Warning Systems / Services (mass notification system, outdoor warning signals, etc.)	Yes	Police and Fire have a system to register mobile phones with 911 to allow for notification.
Maintenance programs to reduce risk (stormwater maintenance, tree trimming, etc.)	Yes	City Department of Environmental Services (DES) has programs for trail and road Maintenance which involves the City's special services and forestry departments. The Forestry Division of the Department of environmental Services. Staff members manage the care and maintenance of approximately 70,000 public trees located along City streets and in City parks and cemeteries.
Mutual aid agreements	Yes	Rochester FD is part of the Monroe County Fire Bureau Mutual Aid Program
Human Resources Manual - Do any job descriptions specifically include identifying or implementing mitigation projects or other efforts to reduce natural hazard risk?	No	-
Other	Yes	The Office of Management and Budget (OMB) prepares and administers the City's operating and



Resources	Available? (Yes/No)	Comments (available staff, responsibilities, support of hazard mitigation)
		<p>capital budgets and develops the City's long range fiscal plans.</p> <p>The Communications Bureau is responsible for providing information to the public about City programs, services and events utilizing multiple communications platforms. The Office of Special Events produces and supports a diverse array of cultural programming designed to enhance a strong sense of community, attract residents and visitors, promote economic development.</p> <p>The Finance Department is accountable for the delivery of financial services for the City of Rochester and the Rochester City School District inclusive of debt issuance, cash management and investments and resource collection; in addition to accounting, payroll, purchasing and assessment services for the City.</p>
Technical/Staffing Capability		
Planners or engineers with knowledge of land development and land management practices	Yes	NBD, Planning & Zoning
Engineers or professionals trained in building or infrastructure construction practices	Yes	NBD and DES
Planners or engineers with an understanding of natural hazards	Yes	Office of City Planning
Staff with expertise or training in benefit/cost analysis	Yes	Budget
Professionals trained in conducting damage assessments	Yes	NBD
Personnel skilled or trained in GIS and/or Hazards United States (HAZUS) – Multi-Hazards (MH) applications	Yes	The Platform Services team from the IT Department manages the City's data center, the database environment, and Geographic Information Systems.
Environmental scientist familiar with natural hazards	No	-
Surveyor(s)	Yes	Office of Maps and Survey – The Department of Environmental Services
Emergency Manager	Yes	Emergency Preparedness Coordinator, Emergency Management is left at the County Level.
Grant writer(s)	Yes	Various City Departments have grant writers/managers. This varies department to department.
Resilience Officer	No	-
Other (this could include stormwater engineer, environmental specialist, etc.)	No	-

Fiscal Capability

The table below summarizes financial resources available to the City of Rochester.

Table 9.24-5. Fiscal Capabilities

Financial Resources	Accessible or Eligible to Use? (Yes/No)
Community development Block Grants (CDBG, CDBG-DR)	Yes
Capital improvements project funding	Yes



Financial Resources	Accessible or Eligible to Use? (Yes/No)
Authority to levy taxes for specific purposes	No
User fees for water, sewer, gas or electric service	Yes – Water Only
Impact fees for homebuyers or developers of new development/homes	No
Stormwater utility fee	No – Monroe County
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
Other (for example, Clean Water Act 319 Grants [Nonpoint Source Pollution])	No

Education and Outreach Capability

The table below summarizes the education and outreach resources available to the City of Rochester.

Table 9.24-6. Education and Outreach Capabilities

Outreach Resources	Available? (Yes/No)	Comment:
Public information officer or communications office	Yes	The Communications Bureau is responsible for providing information to the public about City programs, services and events utilizing multiple communications platforms. The Office of Special Events produces and supports a diverse array of cultural programming designed to enhance a strong sense of community, attract residents and visitors, promote economic development.
Personnel skilled or trained in website development	Yes	The Department of Information Technology (IT) is a key enabler of process efficiencies and technology for City government. The IT Department's mission is to drive innovation and implement change with new technologies, and to assist its customer departments with analyzing their IT needs as a whole.
Hazard mitigation information available on your website	Yes	The City of Rochester maintains a public safety webpage for posting educational materials to residents to reduce vulnerability to local hazards. The website includes emergency responder (RFD, RPD, and 9-1-1) information and contacts.
Social media for hazard mitigation education and outreach	Yes	Facebook, Twitter, YouTube, Instagram
Citizen boards or commissions that address issues related to hazard mitigation	No	-
Warning systems for hazard events	Yes	Police and Fire have a system to register mobile phones with 911 to allow for notification. The Emergency Communications Department serves as a vital link between the citizens of the city and county and their public safety agencies. The Department operates the 911 Call Center and the City's 311 "One Call to City Hall" Call Center.
Natural disaster/safety programs in place for schools	Unknown	RCSD is a separate entity.
Does the jurisdiction have any public outreach mechanisms / programs in place to inform citizens on natural hazards, risk,	Yes	Rochester Fire Department Community Outreach is designed to facilitate public education and fire prevention activities, including working with public and private organizations, community groups, schools, churches, businesses, festival organizers and citizens. Community outreach activities



Outreach Resources	Available? (Yes/No)	Comment:
and ways to protect themselves during such events? <ul style="list-style-type: none"> If yes, please describe. 		<p>include giving presentations, sharing literature, interactive teaching (i.e. Fire Safety House) and other activities involving fire safety education.</p> <p>Rochester Fire Department also hosts Community Emergency Response Team (CERT) training for members of the City of Rochester and surrounding communities.</p> <p>The Department of Recreation and Human Services administers the City's recreational opportunities, camps and special programs, the City of Rochester Public Market, athletics and aquatics, and employment skills training and youth services.</p>

Community Classifications

The table below summarizes classifications for community programs available to the City of Rochester.

Table 9.24-7. Community Classifications

Program	Participating? (Yes/No)	Classification (if applicable)	Date Classified (if applicable)
Community Rating System (CRS)	No	-	-
Building Code Effectiveness Grading Schedule (BCEGS)	No	-	-
Public Protection (ISO Fire Protection Classes 1 to 10)	Yes	1	2020
New York State Department of Environmental Conservation (NYSDEC) Climate Smart Community	Yes	Bronze	June 8, 2017
Storm Ready Certification	No	(Monroe County is StormReady)	-
Firewise Communities classification	No	-	-
Other	No	-	-

Note:

- N/A Not applicable
- Unavailable

Adaptive Capacity

Adaptive capacity is defined as “the ability of systems, institutions, humans and other organisms to adjust to potential damage, to take advantage of opportunities, or respond to consequences” (IPCC 2014). Each jurisdiction has a unique combination of capabilities to adjust to, protect from, and withstand a future hazard event, future conditions, and changing risk. The table below summarizes the adaptive capacity for each identified hazard of concern and the jurisdiction’s capability to address related actions using the following classifications:

- Strong: Capacity exists and is in use.
- Moderate: Capacity might exist; but is not used or could use some improvement.
- Weak: Capacity does not exist or could use substantial improvement.

Table 9.24-8. Adaptive Capacity

Hazard	Adaptive Capacity - Strong/Moderate/Weak
Disease Outbreak	Moderate
Drought	Moderate
Earthquake	Moderate
Extreme Temperature	Moderate
Flood	Moderate





Hazard	Adaptive Capacity - Strong/Moderate/Weak
Hazardous Materials	Moderate
Infestation and Invasive Species	Weak
Landslide	Moderate
Severe Storm	Strong
Severe Winter Storm	Strong
Wildfire	Moderate

9.24.4 National Flood Insurance Program (NFIP) Compliance

This section provides specific information on the management and regulation of the regulatory floodplain, including current and future compliance with the NFIP. The Floodplain Administrator is responsible for maintaining this information and is listed in the Hazard Mitigation Planning Team table at the beginning of this annex.

National Flood Insurance Program (NFIP) Summary

The following table summarizes the NFIP statistics for the City of Rochester.

Table 9.24-9. NFIP Summary

Municipality	# Policies	# Claims (Losses)	Total Loss Payments	# RL Properties (FMA definition)	# RL Properties (NFIP definition)	# SRL Properties	# Policies in the 1% Flood Boundary
City of Rochester	90	17	\$88,889	1	-	0	35

Source: FEMA Region 2 2015

Note (1): Policies, claims, repetitive loss, and severe repetitive loss statistics provided by FEMA Region 2, and are current as of June 30, 2015. The total number of repetitive loss properties does not include severe repetitive loss properties. Number of claims represents claims closed by June 30, 2015.

Note (2): Total building and content losses from the claims file provided by FEMA Region 2.

Note (3): Number of policies inside and outside of flood zones is based on latitude and longitude provided by FEMA Region 2 in the policy file. FEMA noted that for a property with more than one entry, more than one policy may have been in force, or more than one Geographic Information System (GIS) specification was possible. Number of policies and claims, and claims total, exclude properties outside Monroe County boundary, based on provided latitude and longitude coordinates.

RL FMA Definition Any insurable building that has incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event.

RL NFIP Definition Any insurable building for which two or more claims of more than \$1,000 were paid by the National Flood Insurance Program (NFIP) within any rolling ten-year period, since 1978.

Flood Vulnerability Summary

The following table provides a summary of the NFIP program in the City of Rochester.

Table 9.24-10. NFIP Summary

NFIP Topic	Comments
Flood Vulnerability Summary	
Describe areas prone to flooding in your jurisdiction. <ul style="list-style-type: none"> Do you maintain a list of properties that have been damaged by flooding? 	Along the Lake Ontario shoreline and where the Genesee River and Lake Ontario meet (around the port of Rochester area).
Do you maintain a list of property owners interested in flood mitigation? <ul style="list-style-type: none"> How many homeowners and/or business owners are interested in mitigation (elevation or acquisition)? 	Not Currently. However in the 3-4 years the City has issued one permit for the property owner to elevate a portion of his property.
Are any RiskMAP projects currently underway in your jurisdiction?	No



NFIP Topic	Comments
<ul style="list-style-type: none"> If so, state what projects are underway. 	
<p>How do you make Substantial Damage determinations?</p> <ul style="list-style-type: none"> How many were declared for recent flood events in your jurisdiction? 	Follow NYS building code. None have been issued.
<p>How many properties have been mitigated (elevation or acquisition) in your jurisdiction?</p> <ul style="list-style-type: none"> If there are mitigation properties, how were the projects funded? 	1-The project is privately funded with clause for the State reimburse the property owner once the project is completed.
<p>Do your flood hazard maps adequately address the flood risk within your jurisdiction?</p> <ul style="list-style-type: none"> If not, state why. 	Yes.
NFIP Compliance	
<p>What local department is responsible for floodplain management?</p>	Neighborhood and Business Development (Bureau of Building and Zoning)
<p>Are any certified floodplain managers on staff in your jurisdiction?</p>	Not Currently (Staff is working on certification).
<p>Do you have access to resources to determine possible future flooding conditions from climate change?</p>	None that the Floodplain administrator is aware of.
<p>Does your floodplain management staff need any assistance or training to support its floodplain management program?</p> <ul style="list-style-type: none"> If so, what type of assistance/training is needed? 	Yes. Resources for certification. Training for staff so that they can properly and correctly provide information to the community.
<p>Provide an explanation of NFIP administration services you provide (e.g., permit review, GIS, education/outreach, inspections, engineering capability)</p>	Review and issuance of permit for properties that are susceptible to flooding.
<p>How do you determine if proposed development on an existing structure would qualify as a substantial improvement?</p>	The City has not had any proposed development that needed determination if it quality as a substantial improvement.
<p>What are the barriers to running an effective NFIP program in the community, if any?</p>	None.
<p>Does your jurisdiction have any outstanding NFIP compliance violations that need to be addressed?</p> <ul style="list-style-type: none"> If so, state the violations. 	No.
<p>When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?</p>	The most recent Community Assistance Visit was November 9, 2020 and the most recent Community Assistance Contact was October 2, 2012.
<p>What is the local law number or municipal code of your flood damage prevention ordinance?</p> <ul style="list-style-type: none"> What is the date that your flood damage prevention ordinance was last amended? 	Chapter 56 of the City Charter "Flood Damage Prevention". Amended in its entirety 8-12-2008
<p>Does your floodplain management program meet or exceed minimum requirements?</p> <ul style="list-style-type: none"> If exceeds, in what ways? 	Yes.
<p>Are there other local ordinances, plans or programs (e.g., site plan review) that support floodplain management and meeting the NFIP requirements? For instance, does the planning board or zoning board consider efforts to reduce flood risk when reviewing variances such as height restrictions?</p>	Yes. Chapter 120 of the City Charter "Zoning" consider effects to reduce floor risk when reviewing and application.
<p>Does your community plan to join the CRS program or is your community interested in improving your CRS classification?</p>	Interest in participation is unknown at this time.



9.24.5 Evacuation, Sheltering, Temporary Housing, and Permanent Housing

Evacuation routes, sheltering measures, temporary housing, and permanent housing must be in place and available for public awareness to protect residents, mitigate risk, and relocate residents, if necessary, to maintain post-disaster social and economic stability.

Evacuation Routes and Procedures

The City of Rochester identified the following routes and procedures to evacuate residents prior to and during an event.

- No formal evacuation procedures are in place. Evacuation procedures are determined at the time of the incident based on real world conditions.
- No pre-established evacuation routes have been established, except for the Monroe County Radiological Emergency Preparedness Plan.
- Procedures for notifying public can be found in the Monroe County and City of Rochester Hazardous Materials Plans.

Sheltering

The City of Rochester has identified the following designated emergency shelters within the City. These shelters are managed by the American Red Cross. Not all information was available for each shelter at the time of this HMP update.

Table 9.24-11. Designated Emergency Shelters

Site Name	Address	Capacity (# of people)	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided
First Unitarian Church	220 Winton Road South	190	Unknown	Unknown	No	None	Unknown
Reformation Lutheran Church	111 North Chestnut Street	25	Unknown	Unknown	No	None	Unknown
Adams Street Recreation Center	85 Adams Street	330	Unknown	Unknown	No	None	Unknown
Avenue D Recreation Center	200 Avenue D	200	Unknown	Unknown	No	None	Unknown
Campbell Street Community Center	524 Campbell Street	200	Unknown	Unknown	No	None	Unknown
Carter Street Recreation Center	500 Carter Street	200	Unknown	Unknown	No	None	Unknown
David F. Gantt Community Center	700 North Street	441	Unknown	Unknown	No	None	Unknown



Site Name	Address	Capacity (# of people)	Accommodates Pets?	ADA Compliant?	Backup Power?	Types of Medical Services Provided	Other Services Provided
Edgerton Recreation Center	41 Backus Street	300	Unknown	Unknown	No	None	Unknown
Flint Street Community Center	271 Flint Street	380	Unknown	Unknown	No	None	Unknown
South Avenue Community Center	999 South Avenue	264	Unknown	Unknown	No	None	Unknown
Thomas P. Ryan Community Center	530 Webster Avenue	210	Unknown	Unknown	No	None	Unknown

Temporary Housing

Each jurisdiction must identify sites for placement of temporary housing units to house residents displaced by a disaster. The City of Rochester has identified the following sites suitable for placing temporary housing units.

Table 9.24-12. Temporary Housing Locations

Site Name	Site Address	Capacity (number of sites)	Type	Infrastructure / Utilities Available (water, electric, septic, etc.)	Actions Required to Ensure Conformance with the NYS Uniform Fire Prevention and Building Code
None identified					

Permanent Housing

Structures located in the regulatory floodplain might need to be relocated due to high flood risk or new properties must be built once severely damaged properties are demolished. Jurisdictions must identify suitable sites currently owned by the jurisdiction and potential sites under private ownership that meet applicable local zoning requirements and floodplain laws. The City of Rochester has identified the following areas suitable for relocating homes outside of the floodplain.

Table 9.24-13. Permanent Housing Locations

Site Name	Site Address	Capacity (number of sites)	Type	Infrastructure / Utilities Available (water, electric, septic)	Actions Required to Ensure Conformance with the NYS Uniform Fire Prevention and Building Code
None identified					

9.24.6 Growth/Development Trends

Understanding how past, current, and projected development patterns have or are likely to increase or decrease risk in hazard areas is a key component to appreciating a jurisdiction’s overall risk to its hazards of concern. Table 9.24-14 summarizes recent and expected future development trends, including major residential/commercial development and major infrastructure development.



Table 9.24-14. Recent and Expected Future Development

Type of Development	2017		2018		2019		2020		2021		2022	
Number of Building Permits for New Construction Issued Since the Previous HMP* (within regulatory floodplain/ Outside regulatory floodplain)												
	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA	Total	Within SFHA
Single Family	The Building Department did not have this data available for this HMP update.				8	0	53	0	35	0	Final statistics for 2022 were not available for this HMP update.	
Multi-Family					21	0	30	0	13	0		
Other (commercial, mixed-use, etc.)					24	0	70	2	248	1		
Total New Construction Permits Issued					53	0	153	2	296	1		
Property or Development Name	Type of Development	# of Units / Structures		Location (address and/or block and lot)		Known Hazard Zone(s) *		Description / Status of Development				
Recent Major Development and Infrastructure from 2017 to Present												
The City has completed numerous redevelopment projects in the last five years.												
Known or Anticipated Major Development and Infrastructure in the Next Five (5) Years												
The City anticipated numerous redevelopment projects in the next five years.												

SFHA Special Flood Hazard Area (1% flood event)

* Only location-specific hazard zones or vulnerabilities identified.

9.24.7 Jurisdictional Risk Assessment

The hazard profiles in Volume 1, Section 5 (Risk Assessment) provide detailed information regarding each plan participant’s vulnerability to the identified hazards. Section 5.2 (Methodology and Tools) and Section 5.4 (Hazard Ranking) provide detailed summaries for the City of Rochester’s risk assessment results and data used to determine the hazard ranking discussed later in this section.

Hazard area extent and location maps provided below illustrate the probable areas impacted within the jurisdiction based on the best available data at the time of the preparation of this plan and are adequate for planning purposes. Maps were generated only for those hazards that can be identified clearly using mapping techniques and technologies and for which the City of Rochester has significant exposure. The maps also show the location of potential new development, where available.



Figure 9.24-1. City of Rochester Hazard Area Extent and Location Map 1

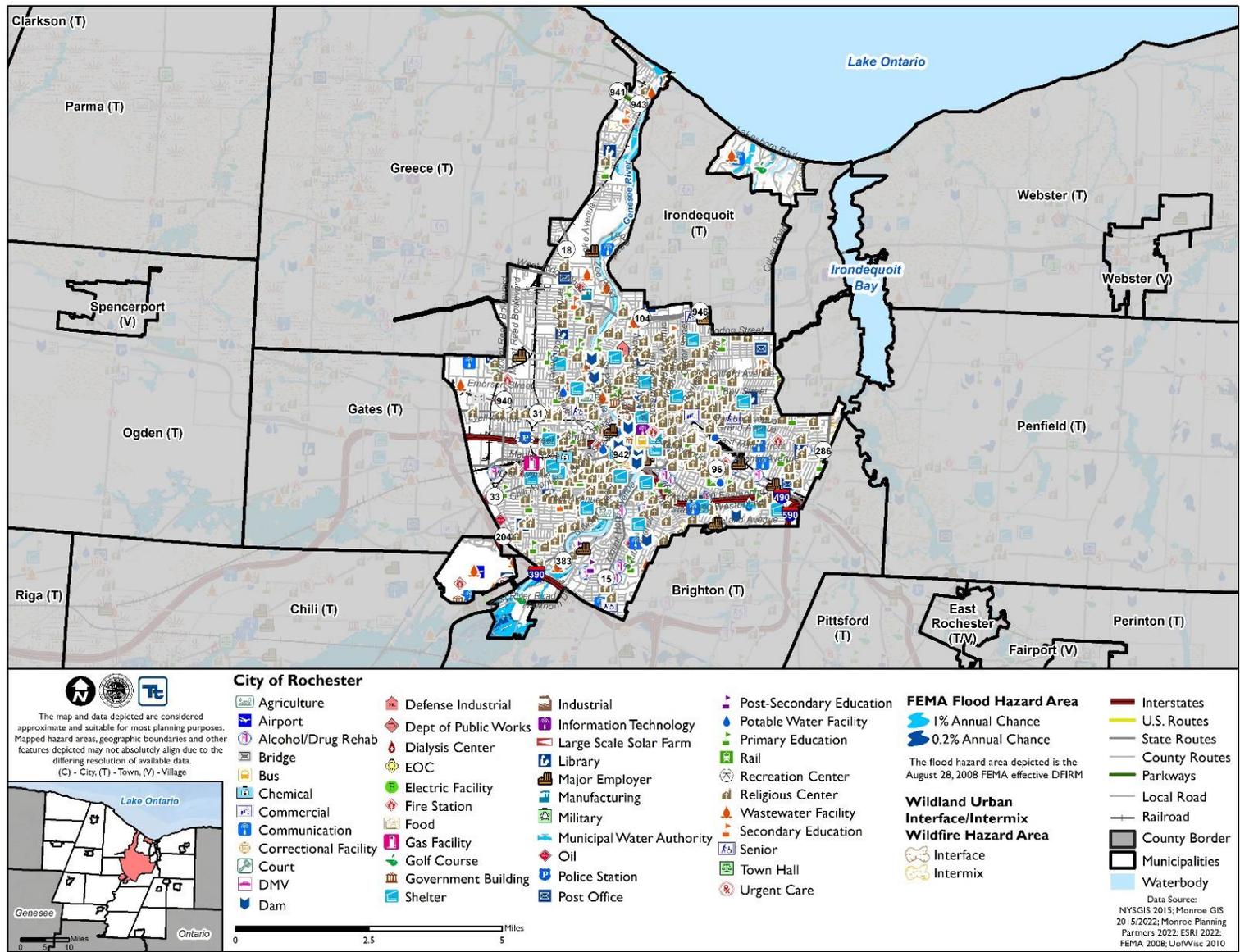
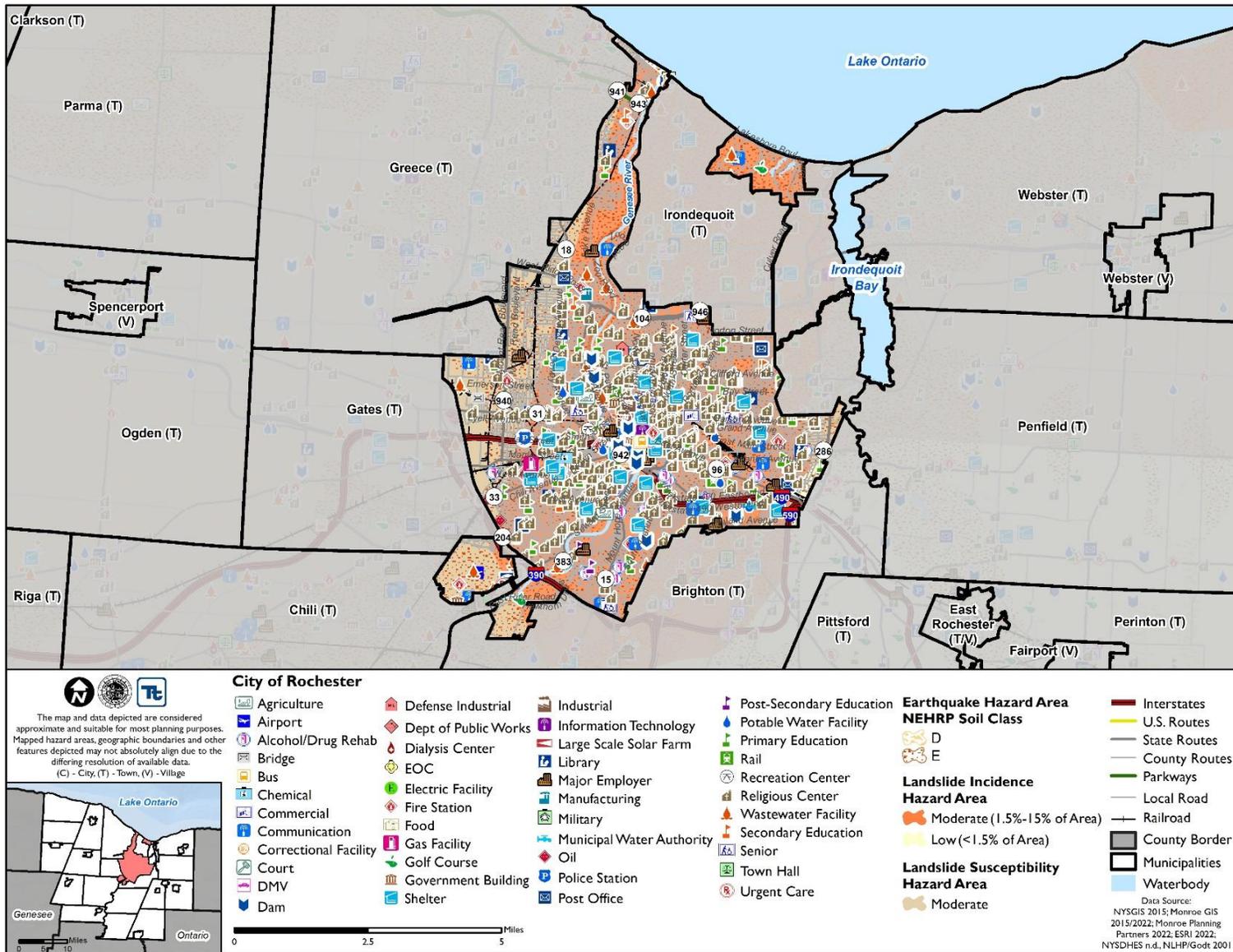




Figure 9.24-2. City of Rochester Hazard Area Extent and Location Map 2





Hazard Event History

Monroe County has a history of natural and non-natural hazard events, as detailed in Volume I, Section 5 (Risk Assessment). A summary of historical events is provided in each of the hazard profiles and includes a chronology of events that have affected the County and its municipalities.

The City of Rochester’s history of federally-declared (as presented by FEMA) and significant hazard events [as presented in NOAA-National Centers for Environmental Information (NCEI)] is consistent with that of the County. Table 9.24-15 provides details regarding municipal-specific loss and damages the City experienced during hazard events since the last hazard mitigation plan update. Information provided in the table below is based on reference material or local sources.

Table 9.24-15. Hazard Event History

Dates of Event	Event Type (Disaster Declaration if applicable)	County Designated?	Summary of Event	Municipal Summary of Damages and Losses
March 8, 2017	High Wind	No	Unusually deep low pressure moved from northwest Ontario across Hudson Bay. The low brought strong winds to the entire region with sustained winds up to 49 mph and wind gusts as high as 81 mph. A significant amount of damage resulted with 100,000 without power in Monroe County alone.	Although the County was impacted, the City of Rochester did not report any damages.
May 2-August 6, 2017	Flooding (DR-4348)	Yes	During the first six months of 2017, more than twice the normal amount of water accumulated on Lake Ontario. The lake reached a record level of 248.95 feet. Flooding began in early May and continued into early fall.	Although the County was impacted, the City of Rochester did not report any damages.
May-June 2019	Lakeshore Flood	No	Excessive runoff into the Ottawa River Basin in Canada restricted the outlet of Lake Ontario. This combined with above normal precipitation into the Lake Ontario Basin, record levels on the Great Lakes above Lake Ontario, and higher than normal flows into the lake from the Niagara River pushed the lake to well above normal levels.	Although the County was impacted, the City of Rochester did not report any damages.
October 31, 2019	High Wind and Flooding	No	A deepening area of consolidated low pressure tracked across the region. This system brought record breaking Halloween rains, damaging wind gusts, and a small Lake Ontario seiche	Although the County was impacted, the City of Rochester did not report any damages.
January 20, 2020 – Present	Covid-19 Pandemic (EM-3434) (DR-4480)	Yes	Between March 1, 2020 and July 20, 2022, Monroe County reported 171,851 confirmed cases of COVID-19, and 1,660 total fatalities.	The City was subject to closures and masking/social distancing requirements.

Notes:

- EM Emergency Declaration (FEMA)
- FEMA Federal Emergency Management Agency
- DR Major Disaster Declaration (FEMA)
- N/A Not applicable





Hazard Ranking and Vulnerabilities

The hazard profiles in Volume 1, Section 5 (Risk Assessment) have detailed information regarding each plan participant’s vulnerability to the identified hazards. The following summarizes the City of Rochester’s risk assessment results and data used to determine the hazard ranking.

Hazard Ranking

This section provides the community specific identification of the primary hazard concerns based on identified problems, impacts and the results of the risk assessment as presented in Volume 1, Section 5 (Risk Assessment). The ranking process involves an assessment of the likelihood of occurrence for each hazard; the potential impacts of the hazard on people, property, and the economy; and community capabilities to address the hazard and changing future climate conditions. Mitigation action development uses the inputs from the evaluation to target those hazards with highest level of concern.

As discussed in Volume 1, Section 5.3 (Hazard Ranking), each participating jurisdiction has differing degrees of risk exposure and vulnerability compared with the County as a whole. Therefore, each municipality ranked the degree of risk to each hazard as it pertains to their community. The table below summarizes the hazard risk/vulnerability rankings of potential natural hazards for the City of Rochester. The City of Rochester reviewed the County hazard risk/vulnerability risk ranking table and individual results to reflect the relative risk of the hazards of concern to the community.

During the review of the hazard/vulnerability risk ranking, the City indicated the following:

- The City changed the hazard ranking for hazardous materials from low to medium, noting the City has a large urban population with chemical manufacturing that takes place in the City.
- The City agreed with the remainder of the calculated hazard rankings.

Table 9.24-16. Hazard Ranking Input

Disease Outbreak	Drought	Earthquake	Extreme Temperature	Flood	Hazardous Materials
Low	Medium	Low	High	High	Medium
Infestation and Invasive Species	Landslide	Severe Storm	Severe Winter Storm	Wildfire	
Low	Low	High	High	Low	

Note: The scale is based on the hazard rankings established in Volume 1, Section 5.3 (Hazard Ranking) and modified as appropriate during review by the jurisdiction

Critical Facilities

NYSDEC Statute 6 CRR-NY 502.4 sets forth floodplain management criteria for State projects located in flood hazard areas. The law states that no such projects related to critical facilities shall be undertaken in a SFHA unless constructed according to specific mitigation specifications, including being raised 2’ above the Base Flood Elevation (BFE). This statute is outlined at <http://tinyurl.com/6-CRR-NY-502-4>. While all vulnerabilities should be assessed and documented, New York State places a high priority on exposure to flooding. Critical facilities located in an SFHA, or having ever sustained previous flooding, must be protected to the 0.2-percent annual chance flood event or worst damage scenario. For those that do not meet these criteria, the jurisdiction must identify an action to achieve this level of protection (NYS DHSES 2017).





The table below identifies critical facilities in the community located in the 1-percent and 0.2-percent floodplain and presents Hazus-MH estimates of the damage and loss of use to critical facilities as a result of a 1-percent annual chance flood event.

Table 9.24-17. Potential Flood Losses to Critical Facilities

Name	Type	Exposure		Addressed by Proposed Action	Already Protected to 0.2% Flood Level (describe protections)
		1% Event	0.2% Event		
Rochester Fire Department	Fire	X	X	2023-City of Rochester-003	-
Monroe County Sheriff Parks Unit	Police	X	X	2023-City of Rochester-003	-
Monroe County Sheriff Marine Unit	Police	X	X	2023-City of Rochester-003	-
US Coast Guard Station	Military	X	X	2023-City of Rochester-003	-
City Public Safety Building	Government Building	X	X	2023-City of Rochester-003	-
US Coast Guard Station	Government Building	X	X	2023-City of Rochester-003	-
Summerville Pump Station	Wastewater Pump Station	X	X	2023-City of Rochester-003	-
Rochester Gas & Electric Corp Dam	Dam	X	X	2023-City of Rochester-003	-
Central Avenue Dam (station # 2)	Dam	X	X	2023-City of Rochester-003	-
Court Street Dam	Dam	X	X	2023-City of Rochester-003	-

Source: FEMA 2008; Monroe County GIS 2022

In addition to critical facilities that are exposed to flooding, the following high hazard dams are located in or could impact the City of Rochester:

- Cobbs Hill Reservoir Dam
- Court Street Dam
- Highland Park Reservoir Dam

Identified Issues

After review of the City of Rochester’s hazard event history, hazard rankings, jurisdiction specific vulnerabilities, hazard area extent and location, and current capabilities, the City of Rochester identified the following vulnerabilities within their community:

- Frequent flooding events have resulted in damages to residential properties. The City has 1 repetitive loss property, but other properties may be impacted by flooding as well. Flooding typically takes place along the Lake Ontario shoreline and where the Genesee River and Lake Ontario meet (around the port of Rochester area).
- The City has several dams including three high hazard dams. Failure of these dams can result in loss of life and damage to property. The high hazard dams are:
 - Cobbs Hill Reservoir Dam
 - Court Street Dam
 - Highland Park Reservoir Dam*



- Numerous critical facilities in the Town are located in the 1-percent floodplain. Exposure to flooding could result in loss of critical services. Identified critical facilities include:
 - Summerville Pump Station
 - Rochester Fire Department
 - Monroe County Sheriff Parks Unit
 - Monroe County Sheriff Marine Unit
 - US Coast Guard Station
 - City Public Safety Building
 - US Coast Guard Station
 - Rochester Gas & Electric Corp Dam
 - Central Avenue Dam (station # 2)
 - Court Street Dam
- The Covid-19 pandemic has demonstrated the level of impact that disease outbreak events can present. Staff need to be trained on how to respond to future events and supplies must be available to address disease outbreak.
- Vulnerable populations need to be protected from extreme temperatures.*
- The City can be impacted by hazards that are not as frequent or do not have the same severity of impact. Residents are not always aware of the risks these hazards present.
- Monroe County coastal municipalities are currently undergoing a FIRM update which may result in changes in building requirements.
- The Mt. Read Complex (building 100, 200, 300) and Colfax Street is in need of significant security upgrades including secure gates added to all entrances/exits and fencing around the Complex and Colfax Street. This complex houses support facilities for the City’s snow emergency operations and vehicle fleet service. It contains the main fueling station for gas/compressed natural gas/diesel-fueled vehicles in the City fleet, as well as a storage facility for various agency vehicles. It also supports salt storage, vehicle maintenance operations and DES dispatch services. The Colfax Street complex houses the City Recycling and Solid Waste functions, construction material staging and the “Material Give-Back” program.
- New invasive pests such as the spotted lanternfly could be a threat to plants in this area in the near future.
- The City’s floodplain administration staff require additional training.
- The generator coverage at the Public Safety Building does not meet the required electric supply to power the entire facility during outages.
- The City has not identified appropriate locations for the placement of temporary and permanent housing.
- While major events that result in substantial damage of structures are rare, municipalities need to have official procedures in place to inspect structures, make determinations, and provide for appeals.

**This issue was identified as a specific area of concern based on resident response to the Monroe Hazard Mitigation Citizen survey.*

9.24.8 Mitigation Strategy and Prioritization

This section discusses past mitigations actions and status, describes proposed hazard mitigation initiatives, and prioritizes actions to address over the next five years.

Past Mitigation Initiative Status

The following table indicates progress on the community’s mitigation strategy identified in the 2017 HMP. Actions that are in progress are carried forward and combined with new actions as part of this plan update and



are included in the tables with prioritization. Previous actions that are now on-going programs and capabilities are indicated as such and previously presented in the 'Capability Assessment' earlier in this annex.

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Table 9.24-18. Status of Previous Mitigation Actions

Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		<ol style="list-style-type: none"> Next Steps Project to be included in 2023 HMP or Discontinue If including action in the 2023 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.
						Cost	Level of Protection	
CRC-1	Evaluate the flood vulnerability of the City Public Safety Building and identify feasible mitigation actions to reduce risk to the 0.2 percent annual chance flood.	Flood	Public Safety building located in FEMA Floodplain	FPA; Engineer	In Progress			<ol style="list-style-type: none"> Include in 2023 HMP West River Wall completed, awaiting revision to FEMA Floodplain Maps
CRC-2	Develop a strategy to reduce the time necessary to clear streets (rights-of-way) of debris (Ice-ES-1)	Flood, Severe Storm, Severe Winter Storm		DES; Highway Superintendent	Ongoing Capability			<ol style="list-style-type: none"> Discontinue Ongoing capability
CRC-3	Periodically review restoration priorities and route efficiencies (Ice-ES-2)	Flood, Severe Storm, Severe Winter Storm		DES	Ongoing Capability			<ol style="list-style-type: none"> Discontinue Ongoing capability
CRC-4	Expand generator coverage at the Public Safety Building based on results of consultant to study. City will be hiring a consultant to study expanding the generator coverage. (Ice-PP-1/Ice-SP-1)	All Hazards		RFD/DES	In Progress			<ol style="list-style-type: none"> Include in 2023 HMP City CIP Funds have been allocated for FY22/23 to fund study and engineering for replacement of PSB Generator
CRC-5	Follow up on funding sources to accomplish the security enhancement recommendations made to harden the facilities and improve site security plans. The committee will	All Hazards		RPD	In Progress			<ol style="list-style-type: none"> Include in 2023 HMP Mt. Read complex



Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		<ol style="list-style-type: none"> Next Steps Project to be included in 2023 HMP or Discontinue If including action in the 2023 HMP, revise/reword to be more specific (as appropriate). If discontinue, explain why.
						Cost	Level of Protection	
	explore future funding sources (CIP and grants) to accomplish security enhancements.							
CRC-6	RPD Security Committee will explore funding sources (CIP and grants) to implement security enhancements based on threat assessments of City critical facilities and public facilities.	Civil Unrest, Terrorism, Utility Failure		Rochester Police Department, City of Rochester	In Progress	Cost		<ol style="list-style-type: none"> Include in 2023 HMP Mt. Read complex
						Level of Protection		
						Damages Avoided; Evidence of Success		
CRC-7	Conduct education and outreach to residents and business owners to inform them if their properties are in known hazard areas, and actions they can take to protect their properties.	Earthquake, Extreme Temperatures, Flood, Infestation, Landslide, Severe Storms, Severe Winter Storms, Wildfire, HazMat, Utility Failure		City Clerk/Administrator	In Progress	Cost		<ol style="list-style-type: none"> Include in 2023 HMP Expand to include outreach on less frequent hazard events
						Level of Protection		
						Damages Avoided; Evidence of Success		
CRC-8	Evaluate the flood vulnerability of the Rochester Fire Department Stations and identify feasible mitigation actions to reduce risk to the 0.2 percent annual chance flood.	Flood		FPA; Engineer	Complete	Cost		<ol style="list-style-type: none"> Discontinue Completed during 2021 review, no current Rochester FD Firehouses are located in the 0.2% floodplain. Only building located in this region is the City PSB – covered under CRC-1.
						Level of Protection		
						Damages Avoided; Evidence of Success		
CRC-9	Contact the US Coast Guard to assist in evaluating the flood vulnerability of the USCG Station and identify feasible	Flood		FPA; Engineer	No Progress	Cost		<ol style="list-style-type: none"> Include in 2023 HMP
						Level of Protection		
						Damages Avoided;		





Project #	Project	Hazard(s) Addressed	Brief Summary of the Original Problem	Responsible Party	Status (In Progress, Ongoing, No Progress, Complete)	Evaluation of Success (if project status is complete)		1. Next Steps Project to be included in 2023 HMP or Discontinue 2. If including action in the 2023 HMP, revise/reword to be more specific (as appropriate). 3. If discontinue, explain why.
	mitigation actions to reduce risk to the 0.2 percent annual chance flood.					Evidence of Success		

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Additional Mitigation Efforts

In addition to the mitigation initiatives completed in Table 9.24-18, the City of Rochester identified the following mitigation efforts completed since the last HMP:

- City of Rochester – “Roc the Riverway” Project. - [City of Rochester | ROC the Riverway](#)

Since the adoption of the County’s first HMP, the City of Rochester has made significant mitigation progress in the following areas:

- The City of Rochester cleaned up five sites in last 10 years: Davidson (2010), Andrews St (2015), Phototech (2014), Felix St (2012), Mt. Hope Ave (2009). Green remediation techniques were part of this effort.

Proposed Hazard Mitigation Initiatives for the HMP Update

The City of Rochester participated in a mitigation action workshop in October 2022 and was provided the following FEMA publications to use as a resource as part of their comprehensive review of all possible activities and mitigation measures to address their hazards: FEMA 551 ‘Selecting Appropriate Mitigation Measures for Floodprone Structures’ (March 2007) and FEMA ‘Mitigation Ideas – A Resource for Reducing Risk to Natural Hazards’ (January 2013).

The table below indicates the range of proposed mitigation action categories. Both the four FEMA mitigation action categories and the six CRS mitigation action categories are listed in the table to further demonstrate the wide-range of activities and mitigation measures selected.

Table 9.24-19. Analysis of Mitigation Actions by Hazard and Category

Hazard	FEMA				CRS					
	LPR	SIP	NSP	EAP	PR	PP	PI	NR	SP	ES
Disease Outbreak	X	-	-	X	X	X	X	-	-	-
Drought	X	-	-	X	X	X	X	-	-	-
Earthquake	X	-	-	X	X	X	X	-	-	-
Extreme Temperature	X	-	-	X	X	X	X	-	-	-
Flood	X	X	-	X	X	X	X	-	-	X
Hazardous Materials	X	-	-	X	X	X	X	-	-	-
Infestation and Invasive Species	X	-	-	X	X	X	X	-	-	-
Landslide	X	-	-	X	X	X	X	-	-	-
Severe Storm	X	X	-	X	X	X	X	-	-	X
Severe Winter Storm	X	X	-	X	X	X	X	-	-	-
Wildfire	X	-	-	X	X	X	X	-	-	-

Note: Mitigation categories are described below the Mitigation Initiatives Table (Table 9.24-20).

The table below summarizes the specific mitigation initiatives the City of Rochester would like to pursue in the future to reduce the effects of hazards. The initiatives are dependent upon available funding (grants and local match availability) and may be modified or omitted at any time based on the occurrence of new hazard events and changes in municipal priorities.



Table 9.24-20. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
2023-City of Rochester-001	Repetitive Loss Mitigation	3	Flood, Severe Storm	<p>Problem: Frequent flooding events have resulted in damages to residential properties. The City has 1 repetitive loss property, but other properties may be impacted by flooding as well. Flooding typically takes place along the Lake Ontario shoreline and where the Genesee River and Lake Ontario meet (around the port of Rochester area).</p> <p>Solution: Conduct outreach to 25 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/evacuating residential homes in the flood prone areas that experience frequent flooding (high risk areas).</p>	No	None	3 years	NFIP Floodplain Administrator, supported by homeowners	High	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.	FEMA HMGP and FMA, PDM, local cost share by residents	High	SIP	PP
2023-City of Rochester-002	Dam Mitigation	3	Flood	<p>Problem: The City has several dams including three high hazard dams. Failure of these dams can result in loss of life and damage to property. The high hazard dams are:</p> <ul style="list-style-type: none"> Cobbs Hill Reservoir Dam 	Yes 💧	May require permitting	Within 5 years	Engineer, FPA, New York State	Medium for engineering evaluation, potentially high for modification	Dam deficiencies identified and addressed.	BRIC, PDM, HMGP, FMA, High Hazard Potential Dams	High	SIP	PP, ES



Table 9.24-20. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				<ul style="list-style-type: none"> Court Street Dam (owned by NYS) Highland Park Reservoir Dam <p>Solution: The City Engineer will complete an engineering survey of each of the high hazard dams in the City to determine what retrofits are necessary to provide greater protections from potential failure. Cost-effective measures will be implemented. For the Court Street Dam, the City will work with New York State to determine if any retrofits are necessary and provide support to the state if necessary.</p>					ons or protections		Grant Program			
2023-City of Rochester-003	Critical Facility Flood Protection	3	Flood	<p>Problem: Numerous critical facilities in the Town are located in the 1% floodplain. Exposure to flooding could result in loss of critical services. Identified critical facilities include:</p> <ul style="list-style-type: none"> Summerville Pump Station Rochester Fire Department Monroe County Sheriff Parks Unit Monroe County Sheriff Marine Unit US Coast Guard Station City Public Safety Building 	Yes ●	None	Within 5 years	FPA, Engineer	TBD by feasibility assessment	Reduction in flood risk, protection of critical services	FEMA HMGP, BRIC, PDM, USDA Community Facilities Grant Program, Emergency Management Performance Grants (EMPG) Program,	High	SIP, EAP	PP, PI





Table 9.24-20. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				<ul style="list-style-type: none"> US Coast Guard Station Rochester Gas & Electric Corp Dam Central Avenue Dam (station # 2) Court Street Dam <p>Solution: The Town will complete feasibility studies for each of the exposed critical facilities to identify what flood protections currently exist, determine if additional measures are needed, evaluate potential protective actions, and implement selected strategies to protect the facilities to the 0.2% flood level. Potential mitigation actions will include:</p> <ul style="list-style-type: none"> Relocation Floodproofing Elevation <p>For facilities that are not owned by the City, the FPA will conduct outreach to the facility managers to discuss flood exposure and potential flood protection techniques.</p>							City Budget			
2023-City of Rochester-004	Disease Outbreak Training and Supplies	1, 4	Disease Outbreak	<p>Problem: The Covid-19 pandemic has demonstrated the level of impact that disease outbreak events can present. Staff need to be trained on how to respond to future events and supplies must be available to address disease outbreak.</p>	No	None	2 years	OEM, Department of Public Health	Staff time for training, Low expected cost for supplies	Increased capability to respond to disease outbreak events	City budget, BRIC, PDM	High	LP R, EA P	P R, PI



Table 9.24-20. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Solution: The Town will stockpile necessary supplies to address disease outbreak events such as PPE. Town staff will undergo training for disease outbreak response.										
2023-City of Rochester-005	Urban Heat Mapping	1, 4	Extreme Temperature	<p>Problem: Vulnerable populations need to be protected from extreme temperatures.</p> <p>Solution: The City will complete urban heat map studies to identify the correlation between socioeconomics and heat vulnerability and increase public outreach surrounding personal preparations for extreme temperatures.</p>	No	None	1 year	OEM, Health Department	Low	Increased mapping of urban heat locations, increased public awareness and preparation	City budget, BRIC, PDM	High	LP R, EAP	PI
2023-City of Rochester-006	Hazard Outreach	1, 4	All Hazards	<p>Problem: The City can be impacted by hazards that are not as frequent or do not have the same severity of impact. Residents are not always aware of the risks these hazards present.</p> <p>Solution: The City will conduct education and outreach to residents and business owners to inform them if their properties are in known hazard areas, and actions they can take to protect their properties.</p>	No	None	1 year	Administration	Staff time	Increased public awareness	City budget	High	EAP	PI
2023-City of Rochester-007	FIRM updates	1, 2, 4	Flood,	Problem: Monroe County coastal municipalities are currently undergoing a FIRM update which may result in changes in building requirements.	No	None	Within 2 years	FEMA, FPA	Staff time	Improvement in best available data, increased	City budget	High	LP R, EAP	PR, PI





Table 9.24-20. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				Solution: The City will review preliminary mapping from FEMA and provide input and feedback on the preliminary maps. Once the maps are finalized, the City will adopt the FIRM through an updated Flood Damage Prevention Ordinance. The municipality will assist FEMA in outreach concerning the new maps and conduct outreach on any potential changes to building/insurance requirements.						public awareness				
2023-City of Rochester-008	Mt. Read Complex	3	Severe Storm, Severe Winter Storm	Problem: The Mt. Read Complex (building 100, 200, 300) and Colfax Street is in need of significant security upgrades including secure gates added to all entrances/exits and fencing around the Complex and Colfax Street. This complex houses support facilities for the City's snow emergency operations and vehicle fleet service. It contains the main fueling station for gas/compressed natural gas/diesel-fueled vehicles in the City fleet, as well as a storage facility for various agency vehicles. It also supports salt storage, vehicle maintenance operations and DES dispatch services. The Colfax Street complex houses the City Recycling and Solid Waste functions, construction	Yes	None	Within 3 years	Public Works	Medium	Continuity of operations protected.	City Capital funding	High	SIP	PP



Table 9.24-20. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				material staging and the “Material Give-Back” program. Solution: The City has identified cash capital funding to proceed with security enhancements at the Mt. Read Complex during FY23. DES will request capital funding for FY24 to proceed with security upgrades at Colfax Street.										
2023-City of Rochester-009	Invasive Species Management Planning	1, 3	Infestation and Invasive Species	Problem: New invasive pests such as the spotted lanternfly could be a threat to plants in this area in the near future. Solution: The City will develop management plans to identify and control the spread of invasive species.	No	None	Within 5 years	Administration	Low	Plans put in place to address invasive species	City budget	High	LP R	PR
2023-City of Rochester-010	Floodplain Management Training	1	Flood	Problem: The City’s floodplain administration staff require additional training. Solution: The City’s floodplain management staff will complete trainings available from the state and FEMA and pursue certified floodplain manager certification.	No	None	2 years	Administration, FPA	Staff time	Increased floodplain management capabilities	City budget	High	LP R	PR
2023-City of Rochester-011	Public Safety Building Backup Power	3	Extreme Temperature, Severe Storm, Severe Winter Storm	Problem: The generator coverage at the Public Safety Building does not meet the required electric supply to power the entire facility during outages. Solution: The City will fund a study to examine generator coverage at the Public Safety Building. Based on the study, engineering will implement the	Yes	None	2 years	Engineer, Public Safety	High	Protection of critical services of Public Safety Building	City CIP budget	High	SIP	ES



Table 9.24-20. Proposed Hazard Mitigation Initiatives

Project Number	Project Name	Goals Met	Hazard(s) to be Mitigated	Description of Problem and Solution	Critical Facility (Yes/No)	EHP Issues	Estimated Timeline	Lead Agency	Estimated Costs	Estimated Benefits	Potential Funding Sources	Priority	Mitigation Category	CRS Category
				necessary replacement of the Public Safety Building generator.										
2023-City of Rochester-012	Temporary and Permanent Housing	1, 3	All Hazards	<p>Problem: The City has not identified appropriate locations for the placement of temporary and permanent housing.</p> <p>Solution: The City will work with the County and neighboring municipalities to identify appropriate locations for the placement of temporary and permanent housing.</p>	No	None	1 year	Administration, Monroe County, neighboring municipalities	Staff time	Locations for temporary and permanent housing identified	City budget	High	LP R	ES
2023-City of Rochester-013	Substantial Damage Procedures	1, 2, 3	All Hazards	<p>Problem: While major events that result in substantial damage of structures are rare, municipalities need to have official procedures in place to inspect structures, make determinations, and provide for appeals.</p> <p>Solution: The municipality will develop official procedures for Substantial Damage and Substantial Improvement determinations.</p>	No	None	Within 5 years	FPA	Staff time	Meet NFIP requirements, improved floodplain administration	Municipal budget	High	LP R	PP, P R

Notes:

Not all acronyms and abbreviations defined below are included in the table.

Acronyms and Abbreviations:

CAV Community Assistance Visit
 CRS Community Rating System
 DPW Department of Public Works
 EHP Environmental Planning and Historic Preservation
 FEMA Federal Emergency Management Agency

Potential FEMA HMA Funding Sources:

FMA Flood Mitigation Assistance Grant Program
 HMGP Hazard Mitigation Grant Program
 BRIC Building Resilient Infrastructure and Communities Program

Timeline:

The time required for completion of the project upon implementation.

Cost:

The estimated cost for implementation.

Benefits:





FPA Floodplain Administrator
 HMA Hazard Mitigation Assistance
 N/A Not applicable
 NFIP National Flood Insurance Program
 OEM Office of Emergency Management

A description of the estimated benefits, either quantitative and/or qualitative.

Critical Facility:

Yes Critical Facility located in 1% floodplain

Mitigation Category:

- Local Plans and Regulations (LPR)—These actions include government authorities, policies or codes that influence the way land and buildings are being developed and built.
- Structure and Infrastructure Project (SIP)—These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area. This could apply to public or private structures, as well as critical facilities and infrastructure. This type of action also involves projects to construct manmade structures to reduce the impact of hazards.
- Natural Systems Protection (NSP)—These are actions that minimize damage and losses, and also preserve or restore the functions of natural systems.
- Education and Awareness Programs (EAP)—These are actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. These actions may also include participation in national programs, such as StormReady and Firewise Communities.

CRS Category:

- Preventative Measures (PR)—Government, administrative or regulatory actions, or processes that influence the way land and buildings are developed and built. Examples include planning and zoning, floodplain local laws, capital improvement programs, open space preservation, and storm water management regulations.
- Property Protection (PP)—These actions include public activities to reduce hazard losses or actions that involve (1) modification of existing buildings or structures to protect them from a hazard or (2) removal of the structures from the hazard area. Examples include acquisition, elevation, relocation, structural retrofits, storm shutters, and shatter-resistant glass.
- Public Information (PI)—Actions to inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them. Such actions include outreach projects, real estate disclosure, hazard information centers, and educational programs for school-age children and adults.
- Natural Resource Protection (NR)—Actions that minimize hazard loss and also preserve or restore the functions of natural systems. These actions include sediment and erosion control, stream corridor restoration, watershed management, forest and vegetation management, and wetland restoration and preservation.
- Structural Flood Control Projects (SP)—Actions that involve the construction of structures to reduce the impact of a hazard. Such structures include dams, setback levees, floodwalls, retaining walls, and safe rooms.
- Emergency Services (ES)—Actions that protect people and property during and immediately following a disaster or hazard event. Services include warning systems, emergency response services, and the protection of essential facilities.



The prioritization criteria provided in Volume 1, Section 6 (Mitigation Strategy) identify 14 evaluation/prioritization criteria to complete the prioritization of mitigation initiatives. For each new mitigation action, a numeric rank is assigned (-1, 0, or 1) for each of the 14 evaluation criteria to assist with prioritizing actions as 'High', 'Medium', or 'Low.' The table below provides a summary of the prioritization of all proposed mitigation initiatives for the HMP update.

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Table 9.24-21. Summary of Prioritization of Actions

Project Number	Project Name	Life Safety	Property Protection	Cost-Effectiveness	Technical	Political	Legal	Fiscal	Environmental	Social	Administrative	Multi-Hazard	Timeline	Agency Champion	Other Community Objectives	Total	High / Medium / Low
2023-City of Rochester-001	Repetitive Loss Mitigation	1	1	1	1	1	1	0	1	0	0	1	0	1	1	10	High
2023-City of Rochester-002	Dam Mitigation	1	1	0	0	1	1	0	1	1	1	0	0	1	1	9	High
2023-City of Rochester-003	Critical Facility Flood Protection	1	1	1	0	1	1	0	1	1	1	0	0	1	1	10	High
2023-City of Rochester-004	Disease Outbreak Training and Supplies	1	0	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2023-City of Rochester-005	Urban Heat Mapping	1	0	1	1	1	1	0	1	1	1	0	1	1	1	11	High
2023-City of Rochester-006	Hazard Outreach	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2023-City of Rochester-007	FIRM updates	0	1	1	1	1	1	1	1	1	1	0	1	1	1	12	High
2023-City of Rochester-008	Mt. Read Complex	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2023-City of Rochester-009	Invasive Species Management Planning	0	1	1	1	1	1	1	1	1	1	0	0	1	1	11	High
2023-City of Rochester-010	Floodplain Management Training	1	1	1	1	1	1	1	1	1	1	0	1	1	1	13	High
2023-City of Rochester-011	Public Safety Building Backup Power	1	1	1	0	1	1	1	1	1	1	1	1	1	1	13	High
2023-City of Rochester-012	Temporary and Permanent Housing	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14	High
2023-City of Rochester-013	Substantial Damage Procedures	0	1	1	1	1	1	1	1	1	1	1	0	1	1	12	High

Note: Volume 1, Section 6 (Mitigation Strategy) conveys guidance on prioritizing mitigation actions. Low (0-4), Medium (5-8), High (9-14).





9.24.9 Action Worksheets

The following action worksheets were developed by the City of Rochester to aid in the submittal of grant applications to support the funding of high priority proposed actions.

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Action Worksheet			
Project Name:	Repetitive Loss Mitigation		
Project Number:	2023-City of Rochester-001		
Risk / Vulnerability			
Hazard(s) of Concern:	Severe Storm, Flood		
Description of the Problem:	Frequent flooding events have resulted in damages to residential properties. The City has 1 repetitive loss property, but other properties may be impacted by flooding as well. Flooding typically takes place along the Lake Ontario shoreline and where the Genesee River and Lake Ontario meet (around the port of Rochester area).		
Action or Project Intended for Implementation			
Description of the Solution:	Conduct outreach to 25 flood-prone property owners, including RL/SRL property owners and provide information on mitigation alternatives. After preferred mitigation measures are identified, collect required property-owner information and develop a FEMA grant application and BCA to obtain funding to implement acquisition/purchase/moving/elevating residential homes in the flood prone areas that experience frequent flooding (high risk areas).		
Is this project related to a Critical Facility or Lifeline?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	1% annual chance flood event + freeboard (in accordance with flood ordinance)	Estimated Benefits (losses avoided):	Eliminates flood damage to homes and residents, creates open space for the municipality increasing flood storage.
Useful Life:	Acquisition: Lifetime Elevation: 30 years (residential)	Goals Met:	1, 3
Estimated Cost:	High	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	6-12 months
Estimated Time Required for Project Implementation:	Three years	Potential Funding Sources:	FEMA HMGP and FMA, local cost share by residents
Responsible Organization:	NFIP Floodplain Administrator, supported by homeowners	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Elevate homes	\$500,000	When this area floods, the entire area is impacted; elevating homes would not eliminate the problem and still lead to road closures and impassable roads
Elevate roads	\$500,000	Elevated roadways would not protect the homes from flood damages	
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			





Action Worksheet		
Project Name:	Repetitive Loss Mitigation	
Project Number:	2023-City of Rochester-001	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Families moved out of high-risk flood areas.
Property Protection	1	Properties removed from high-risk flood areas.
Cost-Effectiveness	1	Cost-effective project
Technical	1	Technically feasible project
Political	1	
Legal	1	The City has the legal authority to conduct the project.
Fiscal	0	Project will require grant funding.
Environmental	1	
Social	0	Project would remove families from the flood prone areas of the City.
Administrative	0	
Multi-Hazard	1	Severe Storm, Flood
Timeline	0	
Agency Champion	1	NFIP Floodplain Administrator, supported by homeowners
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	



Action Worksheet			
Project Name:	Dam Mitigation		
Project Number:	2023-City of Rochester-002		
Risk / Vulnerability			
Hazard(s) of Concern:	Flood		
Description of the Problem:	<p>The City has several dams including three high hazard dams. Failure of these dams can result in loss of life and damage to property. The high hazard dams are:</p> <ul style="list-style-type: none"> • Cobbs Hill Reservoir Dam • Court Street Dam • Highland Park Reservoir Dam <p>The Court Street Dam is owned by New York State.</p>		
Action or Project Intended for Implementation			
Description of the Solution:	<p>The City Engineer will complete an engineering survey of each of the high hazard dams in the City to determine what retrofits are necessary to provide greater protections from potential failure. Cost-effective measures will be implemented.</p> <p>For the Court Street Dam, the City will work with New York State to determine if any retrofits are necessary and provide support to the state if necessary.</p>		
Is this project related to a Critical Facility or Lifeline?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Is this project related to a Critical Facility located within the 100-year floodplain?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
(If yes, this project must intend to protect the 500-year flood event or the actual worse case damage scenario, whichever is greater)			
Level of Protection:	500-year flood	Estimated Benefits (losses avoided):	Dam deficiencies identified and addressed.
Useful Life:	50 years	Goals Met:	3
Estimated Cost:	Medium for engineering evaluation, potentially high for modifications or protections	Mitigation Action Type:	Structure and Infrastructure Project
Plan for Implementation			
Prioritization:	High	Desired Timeframe for Implementation:	Within 5 years
Estimated Time Required for Project Implementation:	5 years	Potential Funding Sources:	BRIC, HMGP, FMA, High Hazard Potential Dams Grant Program
Responsible Organization:	Engineer, New York State	Local Planning Mechanisms to be Used in Implementation if any:	Hazard Mitigation Planning
Three Alternatives Considered (including No Action)			
Alternatives:	Action	Estimated Cost	Evaluation
	No Action	\$0	Current problem continues
	Install dam failure warning systems	\$100,000	Risk remains
	Remove Dams	\$1.5 million	Dam cannot be removed for safety reason.
Progress Report (for plan maintenance)			
Date of Status Report:			
Report of Progress:			
Update Evaluation of the Problem and/or Solution:			



Action Worksheet		
Project Name:	Dam Mitigation	
Project Number:	2023-City of Rochester-002	
Criteria	Numeric Rank (-1, 0, 1)	Provide brief rationale for numeric rank when appropriate
Life Safety	1	Project protects life from dam failure
Property Protection	1	Project protects property from dam failure
Cost-Effectiveness	0	
Technical	0	
Political	1	There is public support for the project
Legal	0	Permitting may be necessary
Fiscal	0	The project requires funding support
Environmental	1	
Social	1	
Administrative	1	
Multi-Hazard	0	Flood
Timeline	0	Within 5 years
Agency Champion	1	Engineer
Other Community Objectives	1	
Total	10	
Priority (High/Med/Low)	High	