CITY OF MERCER ISLAND, WASHINGTON
RESOLUTION NO. 1679

A RESOLUTION OF THE CITY OF MERCER ISLAND, WASHINGTON RATIFYING THE MERCER ISLAND ANNEX TO THE 2025-2030 KING COUNTY REGIONAL HAZARD MITIGATION PLAN.

WHEREAS, the ability of a jurisdiction to mitigate natural hazard risk during and following an emergency or disaster is critical to the protection of life, property, and the environment; and

WHEREAS, hazard mitigation is the process of determining how to reduce or eliminate loss of life and property damage resulting from natural and human-caused hazards; and

WHEREAS, a coalition of King County, Cities, Towns and Special Purpose Districts with like planning objectives formed to pool resources and create consistent mitigation strategies within the King County planning area; and

WHEREAS, the City of Mercer Island has updated its existing Hazard Mitigation Plan as required by Disaster Mitigation Act of 2000; and

WHEREAS, the City of Mercer Island's Hazard Mitigation Plan Update is an annex to the 2025-2030 King County Regional Hazard Mitigation Plan; and

WHEREAS, the 2025-2030 King County Regional Hazard Mitigation Plan (RHMP) and the Mercer Island Annex to the RHMP provides an updated framework for hazard reduction in the community; and

WHEREAS, the Federal Emergency Management Agency (FEMA) has reviewed the Mercer Island Hazard Mitigation Plan (Annex) and granted approval to adopt the plan; and

WHEREAS, Mercer Island has completed a planning process that engaged the public, assessed the risk and vulnerability to impacts of natural hazards, developed a mitigation strategy, and created a plan for implementing, evaluating, and revising this strategy; and

WHEREAS, it is concluded that the ratification of Mercer Island's Annex to 2025-2030 King County Regional Hazard Mitigation Plan (Mercer Island Hazard Mitigation Plan) is necessary and in the public interest.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF MERCER ISLAND, WASHINGTON, AS FOLLOWS:

Section 1. **Ratification.** The City of Mercer Island Annex (Mercer Island Hazard Mitigation Plan) to the 2025-2030 King County Regional Hazard Mitigation Plan, which is attached hereto as Exhibit A and is incorporated herein by reference, is ratified.

PASSED BY THE CITY COUNCIL OF THE CITY OF MERCER ISLAND, WASHINGTON, AT ITS MEETING ON JULY 1, 2025.

CITY OF MERCER ISLAND

Salim Nice, Mayor

ATTEST:

Andrea Larson, City Clerk

City of Mercer Island Jurisdiction Plan Annex

Introduction

Location and Description. Mercer Island is just over five miles long and two miles wide and lies in the southern section of Lake Washington east of the City of Seattle and west of the City of Bellevue. The Island is 6.2 square miles of land area.

Transportation. There are several exits from I-90 to Mercer Island with four main roads on the island. Island Crest Way runs north/south down the middle of the island. West Mercer Way follows the shoreline from the north/south on the west side of the island with steep slopes, ravines and gullies. East Mercer Way follows the shoreline from the north/south on the east side of the island. North Mercer Way follows the shoreline from the east/west on the north side of the island. The bridge linking Mercer Island to Seattle is the renowned multi-lane Mercer Island Floating Bridge. The East Channel Bridge links the island to Bellevue, the State's third most populous city.

Business Districts. The Town Center (Central Business District) is centered on the north end of the island south of I-90, and a smaller business district is on the south end. The Town Center is a 76-acre bowl-shaped area that includes the Island's main post office, the main Fire Station (Station 91), medical and dental offices, drug stores, restaurants and coffee shops, apartment houses and condos, service stations, a bookstore, several retirement homes, two supermarkets, office buildings, and banks. The South End Village is just across the road from Pioneer Park with 120 acres of woods and trails, including horse trails. The Village includes several businesses: a post office, gasoline station, retail and service businesses. It also includes a Park 'n Ride for metro bus commuters. Abutting the Village is Mercer Island's second fire station: Fire Station 92 (South Fire Station).

Park Land and Open Space. Mercer Island boasts 467 acres of parklands and open spaces that feature ball fields, extensive bike trails and picnic areas. In addition, there are more than 150 miles of marked walking trails.

Jurisdiction Profile

The City of Mercer Island…

- **Date of Incorporation**
  July 5, 1960
- **Full-Service City**
  Police, Fire, Parks, Recreation, Water, Sewer and Stormwater Utilities, and Youth & Family Services
- **Location**
  Between Seattle and Bellevue in Lake Washington
- **Area**
  Just over five miles long and two miles wide
- **Parks & Open Space**
  Over 35 parks and open space areas boasting over 400 acres and trails in excess of 50 miles
- **Current Population**
  25,748 as of 2023 U.S. Census population estimates.
- **Population Growth**
  Population increased from 22,699 residents in 2010 to 25,748 in 2020.

Brief History. Settlement of the Island by non-Native Americans began in the late 1870s. The Island is named after one of the three pioneering Mercer brothers from Illinois, all of whom had great influence in the Seattle area. Although none of the brothers lived on Mercer Island, they would often hunt in and explore throughout the island's secluded forests. The early settlers traveled by rowboats to the neighboring community of Seattle to pick up necessities. An occasional tramp steamer would drop off items that were too large to transport by rowboat. Because of the inconveniences of island living, settlement lagged until C.C. Calkins platted the town of East Seattle, having purchased 160 acres; nearly three percent (3%) of the island's total acreage. In 1891 he built a luxurious resort on the western side of the island, which spurred the building of a ferry dock, and small steamers

began to make regular trips. This availability of transportation attracted more residents. Ferry travel continued until July 2, 1940 when the floating bridge from Mercer Island to Seattle was opened.

Climate. Mercer Island enjoys the mild climate prominent in the Puget Sound Region. The average winter temperature is 40 degrees Fahrenheit, and the average summer temperature is 70 degrees Fahrenheit. The average annual rainfall is 35 inches with half typically falling within the months of October and January.

Governing Body Format. The City of Mercer Island has a Council-Manager form of government with seven City Councilmembers, who are all elected at large for staggered four-year terms. The Council elects the Mayor from its members. The City Manager is appointed by, reports directly to, and serves at the pleasure of the City Council. The City Manager, who serves as the chief executive officer, is responsible for implementing the policies and goals of the City Council and provides leadership, coordination, and development of eight (8) City departments: Administrative Services, City Attorney's Office, City Manager's Office, Community Planning & Development, Finance Department, Police Department, Public Works, and Youth and Family Services. The City entered into a contract for fire services at the beginning of 2024 with Eastside Fire and Rescue. The City of Mercer Island City Council assumes responsibility for the adoption of this plan; the Emergency Manager will oversee its implementation.

Development Trends. Population has changed minimally in the past two decades due mainly to the geographic limitations of the Island. The risks have also remained the same with science showing Mercer Island still situated on the Seattle Fault. Risks from earthquake damage, severe winter storms, volcano eruptions, landslides and wildfires are still a concern and planned for by the city. Anticipated development levels for Mercer Island include low to moderate development consisting primarily of residential units. The majority of recent development has been mixed-use, low rises with retail shops located on the ground level and residential units above. There has been minimal infill development. The City of Mercer Island's City Emergency Management Plan was updated and approved by Washington State Emergency Management Division (WAEMD) and FEMA March of 2018 and the 2024 update is currently under WAEMD review. City actions, such as those relating to land use allocations, zoning subdivision and design review, redevelopment, and capital improvements, must be consistent with such a plan.

Jurisdiction Point of Contact:

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Title: Emergency Manager
Entity: City of Mercer Island
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Plan Prepared By:

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Title: Emergency Manager
Entity: City of Mercer Island
Phone: 206-275-7905
Email: amanda.keverkamp@mercerisland.gov

Jurisdiction Risk Summary

Hazard Risk and Vulnerability Summary

HAZARD	HAZARD SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY	PROBABILITY OF FUTURE OCCURRENCE (INCLUDE EFFECTS OF CLIMATE CHANGE)
Avalanche	Not applicable; no such terrain exists on Mercer Island.	N/A	N/A	
Earthquake	The Pacific Northwest has a history of recorded earthquakes. King County and the Pacific Northwest could be impacted by earthquakes from a Cascadia Subduction Zone (CSZ) rupture off of the Washington coast or from any number of local faults, including the Seattle Fault, which runs west to east, from Bainbridge Island to Issaquah, across the norther tip of Mercer Island, along I-90.	Residential, commercial, and City structures; roads; water and sewer lines; and access to off island supplies and resources would likely be impacted. If an earthquake were to happen after hours, and the Island is cut off from access via the Floating or the East Channel Bridges due to damage or the need for professional inspection of the bridges, there are only three police officers and six firefighters on duty, and a handful of City staff who live on the Island. It may take days or weeks for many City staff to get to the Island to help with response and recovery.	The impact of a significant earthquake on either fault line would include the potential for loss of life, injuries, long-term communication disruptions, transportation challenges, reduction in access to supply and resource replenishment, and generally severe conditions for any and all persons on Mercer Island at the time of the incident.	According to experts, the CSZ ruptures around every 240-500 years. The last rupture was 324 years ago, while similar subduction zones across the globe rupture every 100-200 years. Less is known about the Seattle Fault, but experts believe it ruptures every few thousand years. Climate change has been shown to potentially increase earthquake risk due to changing weight of water on earth's surface. Unclear how much this would impact our region, as studies establishing this link are still ongoing.
Flood	Mercer Island could be impacted by minor urban flooding during excessive rainfall events but there are no structures in the	N/A	N/A	Climate change can increase the likelihood of atypical weather events, producing extreme precipitation which

	FEMA 100-Year Floodplain.			may increase urban flooding.
Landslide	Landslides are a significant life safety risk and mitigation challenge for Mercer Island. Mercer Island terrain is made up of steep slopes across the entire Island, including along East and West Mercer Ways. There are areas that have been designated landslide hazard areas.	In 2009, the City underwent a landslide hazard assessment and has tracked and monitored known hazard areas. As development of the island's residential communities and business districts progressed, the City identified specific categories of geologic hazards to be mitigated during the design process. Engineered solutions addressing these risks, along with improvements in stormwater control, have reduced occurrences of severe landslides on the Island.	Landslides are capable of moving large amounts of land, trees, structures, debris, and other material destroying above and below ground critical infrastructure – including water and sewer lines, power lines, natural gas lines, communication structures; as well as public and private property, roads, and causing injury and death. Although improvements to development engineering and stormwater control have significantly reduced the instances and severity of landslides on the island in the past 10 years, slides still present a risk to occupied residences and commercial structures. Periodically the City responds to landslides which may block emergency access or affect occupancy and anticipates that landslides response will be a large component of emergency response following a severe seismic event.	Climate change can increase the risk of landslides through extreme precipitation events.

Extreme Weather	Mercer Island is at risk for heavy rain and wind, snow and ice, and extreme heat events. A priority for the City has been increasing the tree canopy over the Island. The tree canopy cover currently sits at just under 50%. It has positive effects on severe heat events – bringing Island temperatures down a few degrees – and negative effects during severe windstorms, as downed trees and limbs damage infrastructure and property, cause power outages, and block roads. Extreme heat events increase the risk of brush fires.	Heavy rain events may result in localized or urban flooding and saturate soil, increasing the risk of landslides. Saturated soils can weaken tree stability, especially along steep slopes, increasing the probability of trees falling onto property or roads. Wind events may result in downed trees and tree limbs, damaging private or City property, roads, and infrastructure. Snow and ice events, while rare, tend to limit or cripple transportation, cause trees, limbs, and powerlines to break. Extreme heat events while rare, are increasing region wide. In 2021, the region saw a 1-in-10,000-year event producing a heat dome and record-breaking high temperatures that lasted seven days.	Extreme winter weather events could impact any and all City infrastructure including roads/transportation, sidewalks, and other public property, as well as critical infrastructure. Impact on transportation, includes inaccessibility, unsafe driving conditions, and urban flooding. Impact on critical infrastructure includes multi-day power outages, communications challenges, and blocked roads. Extreme heat events can damage infrastructure, stress the electrical grid, induce droughts and wildfires, and cause heat-illnesses and death.	Climate change can increase the likelihood of atypical weather events, such as severe snowstorms. At least one winter weather event happens yearly. Climate change is leading to hotter and drier summers in the region.
Tsunami	Not applicable. Mercer Island is not at risk for a tsunami. However, being an island in Lake Washington, Mercer Island would be susceptible to a seiche. See below for details.	See section on seiche.	See section on seiche.	

Volcano	There are no volcanos on Mercer Island. Washington, however, is home to five volcanoes that are listed high or very high threat potential: Mount Rainier, Mount St. Helens, Mount Baker, Mount Adams, and Glacier Peak.	Eruptions from any of these could cause a hazard for communities hundreds of miles away, in the form of ash in the air.	A major volcanic event would likely impact Mercer Island in the form of volcanic particulates in the air. Ashfall may impact City infrastructure and private property, machinery, and possibly waterways.	The outpouring of gasses and ash from volcanic activity may influence climate patterns for years after activity.
Wildfire	Mercer Island's limited open space reduces its risk for wildfire as compared to other King County communities. Areas of that open space which are considered wildland-urban interface (WUI) designated areas are even more limited. However, nearly 50% of the Island is covered by an urban tree canopy. Recent high-profile wildfires have typically been driven by high winds, low moisture, and an abundance of extremely dry fuel (uncut grass, overgrown vegetative material, shrubs, and dead leaves).	Mercer Island has two fire stations and contracts with Eastside Fire and Rescue (EF&R), an organization well-trained in wildfire response. Many homes are situated on steep slopes, making access difficult. Should an evacuation be ordered, residents have limited exit points, all via I-90.	Some potential exists for a wildfire on Mercer Island, however our dry season during the summer is also typically the least windy part of the year. The City has a robust forest management program, with contractors and volunteers removing undesirable vegetation on a regular basis.	Climate change leads to an increase in both the number and severity of wildfires, due to decreased rainfall and overall warmer and drier conditions. The burning of forests also releases more carbon into the atmosphere, further exacerbating climate change.
Civil Disturbance	Most of the risk related to civil disturbance would be related to activity in Seattle or Bellevue carrying over to Mercer Island via the floating or East	The 2020 summer riots were a glimpse as to how close Mercer Island is connected to two major metro areas – Seattle and Bellevue – however, no civil	Some potential exists for possible unrest during a catastrophic earthquake, due to potential isolation from help and resources, as the population may	

	Channel Bridges. Previously, Mercer Island has had only minor civil disturbances in reaction to activities in the Mercer Island or neighboring communities. All previous civil disturbance incidents have been able to be successfully resolved with local law enforcement and the assistance of mutual aid partners.	disturbances have been located in Mercer Island. Three Officers are on duty at any given time.	become desperate for food or other resources.	
Cyber Attack	Cyberattacks are an increasing challenge for government agencies. Valuable information or systems may be compromised until ransom is paid or may be corrupted.	As with any local government entity, the City is vulnerable to these attacks however, the City's IT team regularly updates software and implements security measures. Staff are trained and regularly tested to avoid phishing and other types of entry-point attacks.	Were there to be a successful cyber-attack, critical infrastructure like water and sewer systems (managed via SCADA software) may be compromised. The impact would likely be temporary due to the City's backup and testing policies and procedures.	
Dam Failure	Mercer Island is situated within Lake Washington. Lake Washington water levels are controlled by the Hiram M. Chittenden Locks in Ballard.	The Hiram M. Chittenden Locks are managed and maintained by the U.S. Army Corps of Engineers.	Should dam failure occur, access to boat launches and docks, transportation may be impacted as well as underwater utilities.	Climate change can increase the likelihood of atypical weather events, producing extreme precipitation which may increase urban flooding. The Sammamish and Cedar Rivers feed into Lake Washington. The Army Corps of Engineers would control water levels

				to compensate as needed.
Hazardous Materials Incident	Risk from a hazardous materials incident is low and would be associated with the movement of hazardous materials across I-90, complications with a natural gas supply line, or at one of the local fuel stations. A growing risk is chemical fires from lithium-ion batteries and electric vehicle (EV) fires.	Interstate 90 (I-90) bisects Mercer Island on the north end of the Island. Thousands of motorists and commercial vehicles travel across Mercer Island via I-90 daily. A large natural gas pipeline cuts through the northeast section of Mercer Island, mainly along residential streets. The Island is home to four commercial fuel stations as well as fueling options through MISD and City operations. The use of lithium-ion batteries is on the rise. According to DOL data, there is upwards of 4,700 registered EVs on Mercer Island.	Impacts of a hazardous materials incident include loss of life or injury, evacuation challenges, transportation disruptions, depletion of fire resources as specialized responders are necessary to help respond to the incident, and environmental damage, depending on the type of hazardous materials involved.	While rare, traditional fire suppression approaches are not as effective on electric vehicle fires. As climate change continues to drive legislation around EVs, internal combustion engine vehicles, it is anticipated that EV use will continue to grow.
Public Health Emergency	Mercer Island, as with every other community across the country, is susceptible to a public health emergency like a pandemic.	Pandemics can interrupt normal services and negatively impact the economy.	Impacts could include loss of life, injury, or illness. Deterioration of quality of life, community safety, and economic impact based on mitigation tactics imposed in a health emergency.	
Terrorism	As with any U.S. city, the possibility of a mass shooting or other terrorist attack is present in Mercer Island.	Collateral damage from nearby terrorist strikes to large metro areas, Seattle and Bellevue, could adversely affect Mercer Island.	The impact of terrorism would be related to the type of incident and could produce mass casualty incidents, injuries, death, transportation	

	Mercer Island's close proximity to Seattle presents the potential for fallout from a dirty bomb or other large-scale radiological attack.		challenges, destruction of public and private property, and disruptions to the economy.	
Seiche	A seiche is a standing wave in an enclosed or partially enclosed body of water, like lakes. Mercer Island could be susceptible to a seiche if caused by a large earthquake.	The 7.9 magnitude Denali, Alaska earthquake of 2002 produced seismic waves that reached Seattle, causing a seiche that damaged at least 20 houseboats on Lake Union. A seiche on Lake Washington that would damage critical infrastructure, shorelines, and public and private vessels would likely be a result of a major earthquake. See the section on earthquakes for more information about vulnerability and likelihood of occurrence.	A seiche on Lake Washington could severely damage vessels, docks, floating bridges, underwater critical infrastructure, and shorelines.	

Hazard and Asset Overview Map(s)

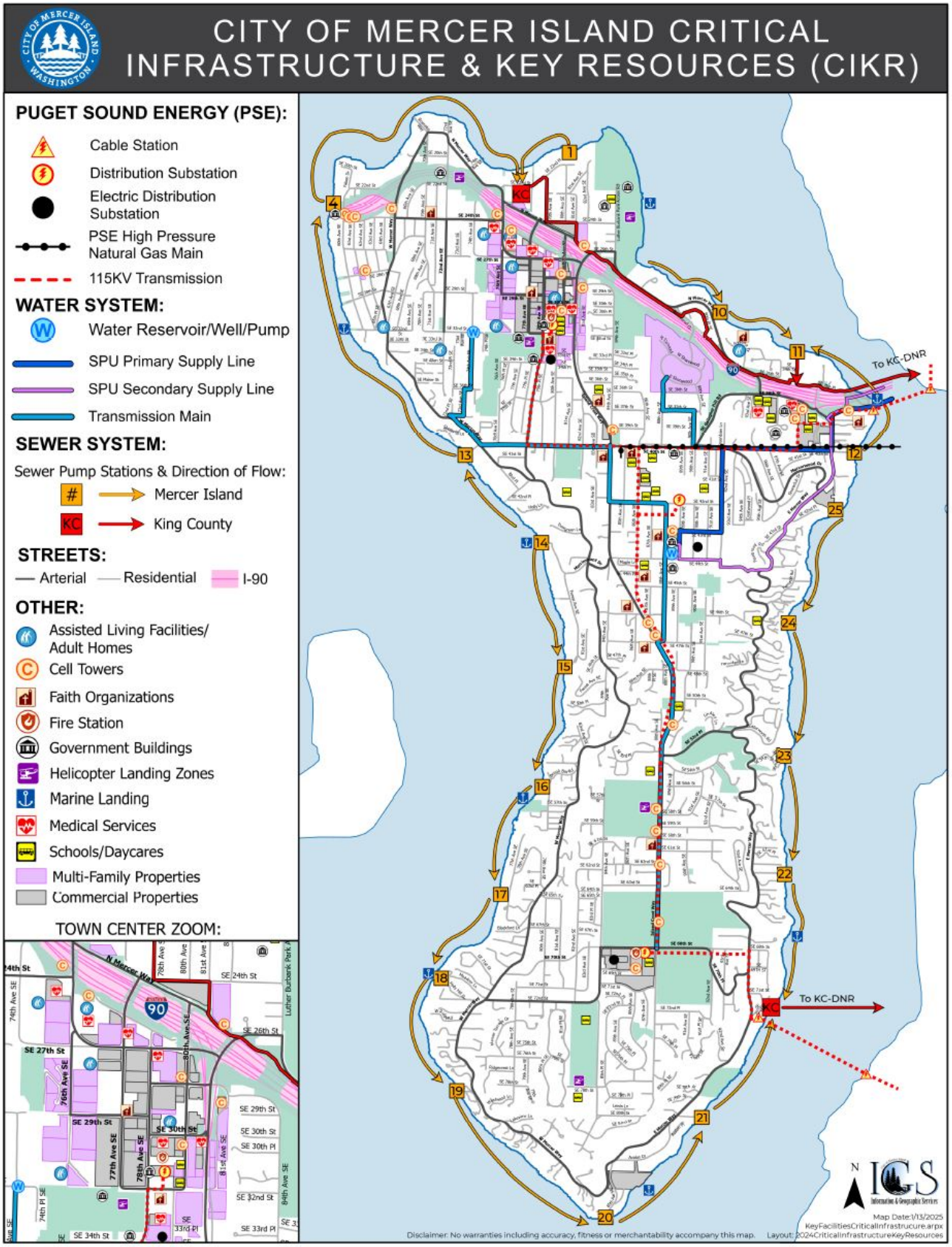


Figure 1: Mercer Island Critical Infrastructures & Key Resources (CIKR).

Figure 2: Mercer Island Key Facilities with Previous Occurrence Hazard

Figure 3: Mercer Island Key Facilities with Landslide Hazard

Figure 4: Mercer Island Key Facilities with Seismic Hazard

Assets at Risk

Asset	Value ($)	Hazard Summary	Vulnerability Summary	Impact Summary
1. MICEC Generator	1.5M	May not be able to support city operations, serving as EOC, Emergency Shelter site, and City Hall	Unable to maintain city operations and Emergency Shelter site	Emergency response and City government operations may be compromised
2. Public Works Building	1.1M	May fail in earthquake – seismic repairs underway	Unable to maintain Right-of-Way, Stormwater, Sewer Utility, Water Utility, Parks Maintenance, Engineering, and other Service teams and services	As the City's only workshop and mechanic facility that houses 64 employees and serves the entire City fleet, disaster response would be compromised
3. City Hall, EOC, and Police Portable Complex	19M	City Hall was permanently closed in October 2023 due to asbestos found in the HVAC system; EOC is now operating out of the MICEC with limited capacity when MICEC acts as an Emergency Shelter; Police services have moved to portables on the City Hall property	Unable to maintain City operations and shelter site	City government and disaster response would be compromised
4. Water and Sewer Lines	250M	May fail in earthquake – need redundant lines	Community water and sewer impacted	Limited or no water/sewer
5. Roadway Damage	75M	Roadways impassable	Emergency Vehicles unable to respond	Public may not be served in emergency
6. City's Communication Infrastructure	100K	Communications infrastructure (radio system) needs replacement or repair	City emergency communications affected	Limited communications
7. Drinking Water	5.5M	No current Emergency Well on South end of Mercer Island	Drinking water availability for South Island residents limited	Limited water to south end of MI
8. Stormwater Pipes	15M	Damage may cause stormwater pipes to fail	Urban flooding for residents	Homes/streets may see urban flooding
9. Station 91 Fire Doors	400K	Unable to open	Fire Apparatus cannot respond to emergencies	Public may not be served in emergency

Plan Update Process

The City of Mercer Island participated in the multi-jurisdictional planning process led by King County. Additionally, the Mercer Island team identified the hazards, mitigation strategies, and projects that could most benefit Mercer Island. In-person events and online outreach were used to capture public comment. Each team member below provided input during the update process. This annex once compiled was reviewed by City staff and King County for accuracy.

Jurisdiction Planning Team

NAME	TITLE	ORGANIZATION	CONTRIBUTION
Amanda Keverkamp	Emergency Manager	MI Police	Write Plan
Jason Kintner	Chief of Operations	MI Public Works	HM Strategy
Alaine Sommargren	Public Works Deputy Director	MI Public Works	HM Strategy
Gareth Reece	Building Official	MI CPD	HM Strategy
Ali Spietz	Chief of Administration	MI CM	HM Strategy
Alfredo Moreno	MI Senior Systems Mgr.	MI IGS	HM Strategy
Alanna DeRogatis	Sustainability Pgm. Mgr.	MI Public Works	Climate Impact
Elayne Grueber	Utilities Engineer	MI Public Works	HM Strategy

Plan Update Timeline

PLANNING ACTIVITY	DATE	SUMMARY	ATTENDEES
Regional Hazard Mitigation Plan Update Kick-Off meeting	12/13/2023	KC and region met to discuss plan agenda and goals	EM's, King County and special purpose districts
Regional Hazard Mitigation Annex Workshop	06/21/2024	KC workshop for partners	EM's, King County and special purpose districts
Strategy Consultations with Department Teams	April-September 2024	Reviewed 2020 HMP project status and identified new projects	Jennifer Franklin, Jason Kintner, Alaine Sommargren, Ali Spietz, Alfredo Moreno, Jessi Bon, Alanna DeRogatis, Leah Llamas
First Public Outreach	09/08/2024	September 8 Public Outreach Event at Mercer Island Farmers Market, where hazards and strategy ideas were presented for public comment	Amanda Keverkamp, Emergency Volunteers, Public
Second Public outreach	09/06/2024 – 10/31-2024	Online Open House with segments for open comments, questions, survey, and mitigation project ideas	179 unique visitors to the Online Open House and 57 survey responses
Third Public outreach	09/10/2024	September 10 Hazard Awareness and Emergency Preparedness	Amanda Keverkamp, Marjorie Carlson, Public

		Presentation for Mercer Island senior group	
Draft Plan to Leadership Team for review	December 2024	Draft Plan with City Leadership Team for review	Department Directors and City Leadership
Draft Plan to King County for review	12/31/2024	Sent to King County for review	Andrew Matthews
Plan Presented to City Council	Summer of 2025	Plan will be presented at City Council Meeting for approval	Amanda Keverkamp, City Council, City Staff

Public Outreach

Multiple engagement opportunities for public comment on hazards and infrastructure priorities.

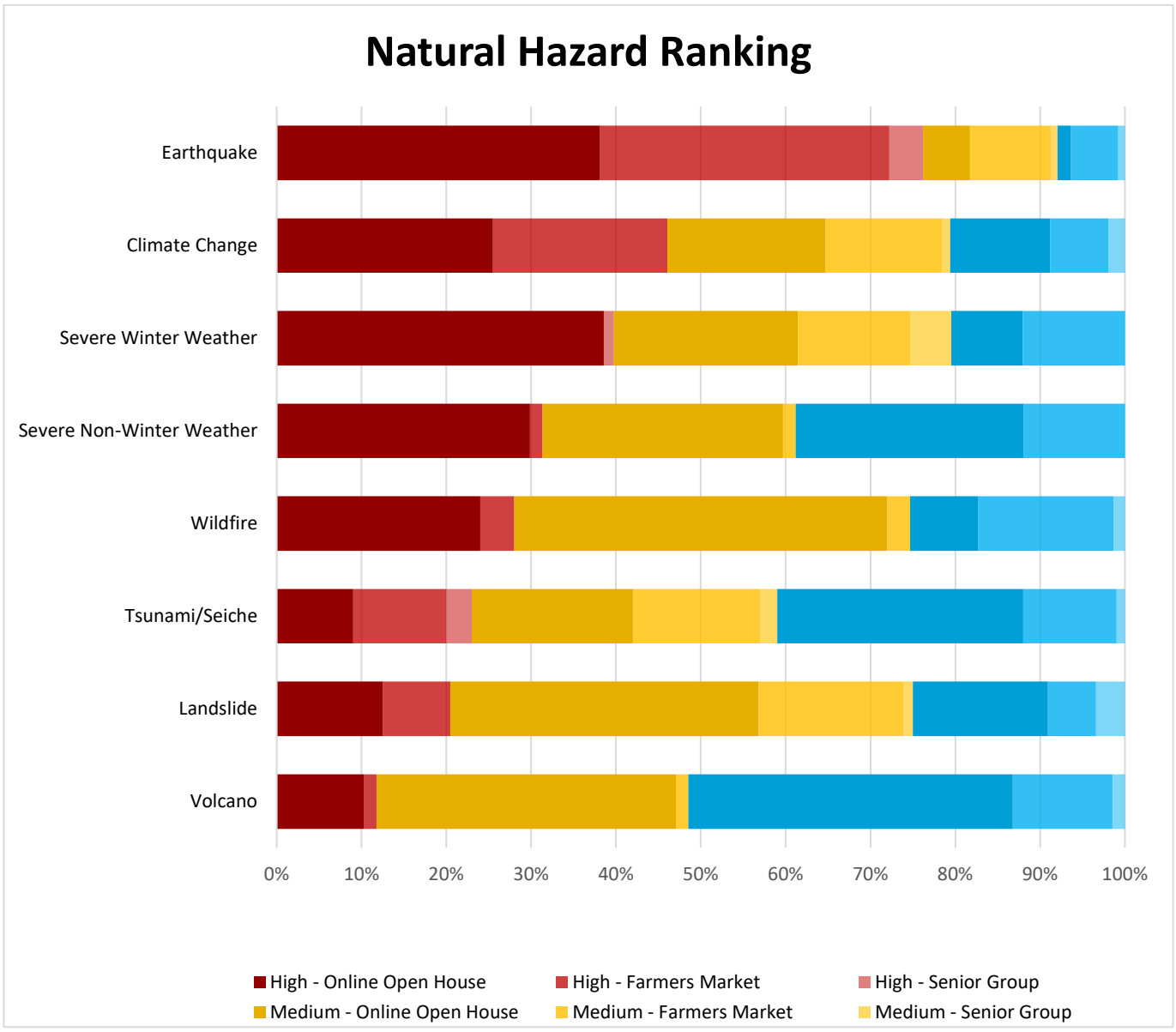
- **September 8** – Outreach Booth at Mercer Island Farmers Market which asked for public to comment on which hazards and critical infrastructure concern them the most. Over seventy people provided feedback.
- **September 6 – October 25** - Online Survey that again asked the public to rank the hazards and critical infrastructure that concerns them the most. The City received 57 survey responses.
- **September 10** – Presentation and public input from Mercer Island senior group: Seniors Living Alone. Participants were asked to identify the top three hazards and critical infrastructure that concern them the most. Twelve people attended and participated.

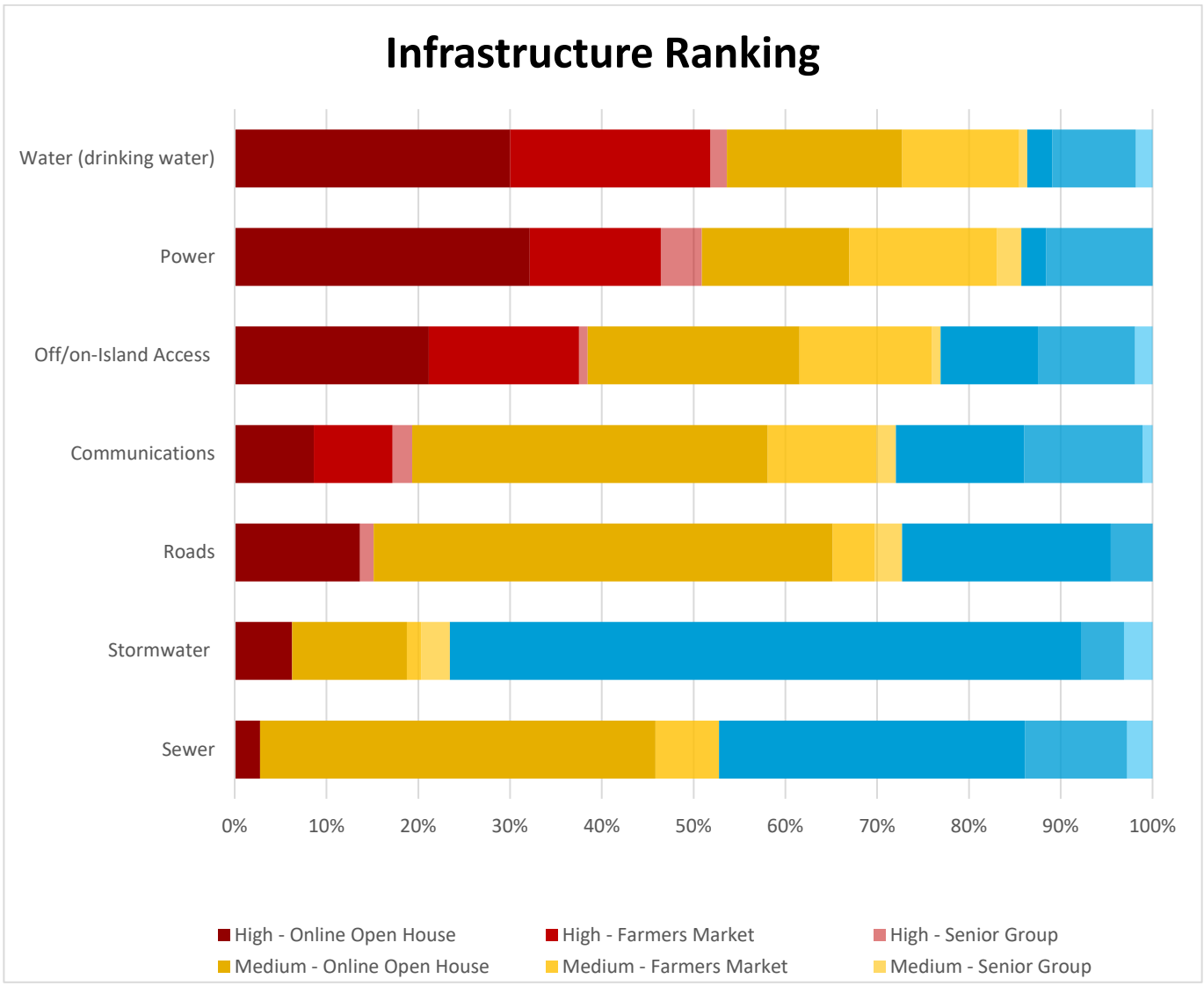
Public Outreach Events

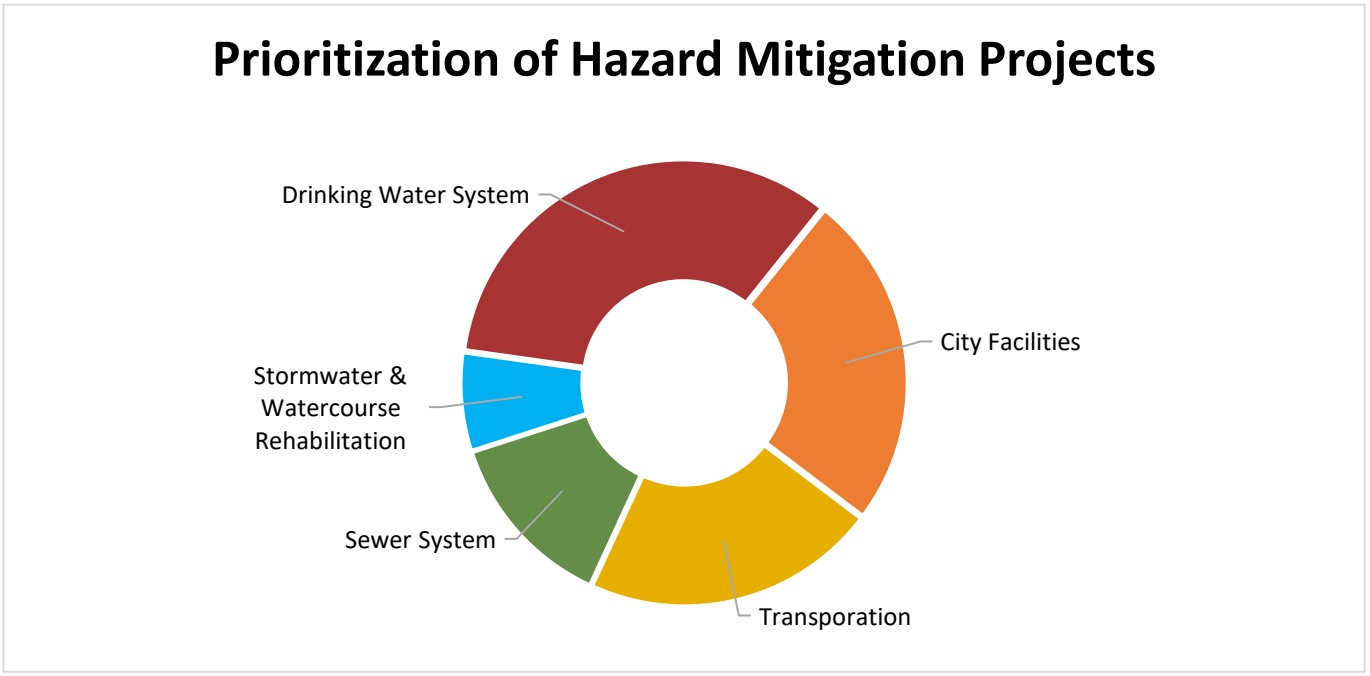
EVENT	DATE	SUMMARY	ATTENDEES
Booth at Farmers Market	Sunday, September 8	Public Input on most vulnerable hazards and effected assets	Emergency Manager, Emergency Volunteers, General Public
Online Open House **and community engagement via "Let's Talk"**	September 6 – October 31	Input from community on prioritization of mitigation projects previously identified by staff to be focused on over the next 5 years	General Public – 179 visitors to project page generating 57 survey responses
Outreach with Seniors Living Alone Group	Tuesday, September 10	Presentation and public input on most vulnerable hazards and effected assets	Emergency Manager, Mercer Island Seniors

For both in-person events, the City asked the public to rank the top three (3) natural hazards and critical infrastructure that are the most concerning. They were encouraged to select High Concern, Medium Concern, or Low Concern. Similarly, for the Online Open House, respondents were asked to rank hazards and critical infrastructure in order of importance.

These are the combined results from all outreach (in-person and online):


Natural Hazard Ranking
Earthquake
Climate Change
Severe Winter Weather
Severe Non-Winter Weather
Wildfire
Tsunami/Seiche
Landslide
Volcano
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
High - Online Open House
High - Farmers Market
High - Senior Group
Medium - Online Open House
Medium - Farmers Market
Medium - Senior Group


Infrastructure Ranking
Water (drinking water)
Power
Off/on-Island Access
Communications
Roads
Stormwater
Sewer
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
High - Online Open House
High - Farmers Market
High - Senior Group
Medium - Online Open House
Medium - Farmers Market
Medium - Senior Group


Prioritization of Hazard Mitigation Projects
Drinking Water System
City Facilities
Stormwater & Watercourse Rehabilitation
Sewer System
Transporation

Jurisdiction Hazard Mitigation Program

Hazard mitigation strategies were developed through a two-step process. Each jurisdiction met with an internal planning team to identify a comprehensive range of mitigation strategies. These strategies were then prioritized using a process established at the county level and documented in the base plan.

Plan Monitoring, Implementation, and Future Updates

King County leads the mitigation plan monitoring and update process and schedules the annual plan check-ins and bi-annual mitigation strategy updates. Updates on mitigation projects are solicited by the county for inclusion in the countywide annual report. As part of participating in the 2020 update to the Regional Hazard Mitigation Plan, every jurisdiction agrees to convene their internal planning team at least annually to review their progress on hazard mitigation strategies and to update the plan based on new data or recent disasters.

As part of leading a countywide planning effort, King County Emergency Management will send to planning partner any federal notices of funding opportunity for the Hazard Mitigation Assistance Grant Program. Proposals from partners will be assessed according to the prioritization process identified in this plan and the county will, where possible, support those partners submitting grant proposals. This will be a key strategy to implement the plan.

Plan Goals

1. Identify Mercer Island Hazards.
2. Update Mercer Island Hazard Maps.
3. Identify Mercer Island assets that could be at risk from these identified hazards.
4. Establish mitigation strategies (projects) that address the asset risk.
5. Discuss funding options with the understanding that mitigation projects may have to wait until a funding source can be identified.

The next plan update is expected to be due in April 2025. All jurisdictions will submit letters of intent by 2023, at least two years prior to plan expiration. The county will lead the next regional planning effort, beginning at least 18 months before the expiration of the 2020 plan.

Continued Public Participation

King County and its partner cities already maintains substantial public outreach capabilities, focusing on personal preparedness and education. Information on ongoing progress in implementing the hazard mitigation plan will be integrated into public outreach efforts. This will provide King County residents, already engaged in personal preparedness efforts, with context and the opportunity to provide feedback on the county's progress and priorities in large-scale mitigation. In the vertical integration of risk-reduction activities from personal to local to state and federal, it is important that the public understand how its activities support, and are supported by, larger-scale efforts.

The outreach and mitigation teams will also continue to work with media and other agency partners to publicize mitigation success stories and help explain how vulnerabilities are being fixed. When possible, public tours of mitigation projects will be organized to allow community members to see successful mitigation in action.

Hazard Mitigation Authorities, Responsibilities, and Capabilities

Plan Integration

There are various plans and planning processes within the City of Mercer Island that impact hazard risk. To other planning processes, the hazard mitigation plan brings risk and vulnerability information to help prioritize projects and set development standards or regulations. The mitigation plan also comes with potential funding for investments in cost-effective risk-reduction projects. As the mitigation plan is not itself a regulatory or budgetary

document, strategies identified in the mitigation plan are often best implemented through those processes or programs. These include strategic plans, long-range plans, resource plans, and capital plans listed in the table below.

Plans

Plan Title	Responsible Agency	Point of Contact	Relationship to Hazard Mitigation Plan
Comprehensive Emergency Management Plan: to include Continuity of Operation Plans, Pandemic Plan, Terrorism response Plan and Threat and Hazard Identification and Risk Assessment, Debris Management Plan, Volunteer Operations Plan, Shelter Plan	City of Mercer Island – Emergency Management	Amanda Keverkamp	Guides planning, operations and recovery efforts
Comprehensive Plan	City of Mercer Island – Community Planning & Development	Jeff Thomas	Provides policies for Land Use, Housing, Transportation, Utilities, Capital Facilities, and designated Environments.
Capital Improvement Plan	City of Mercer Island – Public Works	Jason Kintner	City Facilities, Pedestrian and Bicycle Facilities, Parks, Streets and Right of Way, Storm and Surface Water Drainage, Water System, Sanitary Sewer System and Schools
Shoreline Management Plan	City of Mercer Island – Community Planning & Development	Jeff Thomas	Provides development regulations generally within 200 feet of the shoreline of Lake Washington.
Transportation Improvement Plan	City of Mercer Island – Public Works	Jason Kintner	Guides future planning for roadway, pedestrian and bicycle projects.
Pedestrian and Bicycle Facilities Plan	City of Mercer Island – Public Works	Jason Kintner	Guides investments and other actions relating to pedestrian and bicycle facilities such as trails, crosswalks, bike lanes, and sidewalks.
Floodplain or Basin Plan	City of Mercer Island – Public Works	Jason Kintner	Assists with urban flood control
Stormwater Plan	City of Mercer Island – Public Works	Jason Kintner	Conforms to Puget Sound Water Quality Plan

Programs, Policies, and Processes

Program/Policy	Responsible Agency	Point of Contact	Relationship to Hazard Mitigation Plan
Construction Codes Including: site plan review	City of Mercer Island – Community Planning & Development	Jeff Thomas	Hazards and mitigation opportunities are reviewed when new versions of construction codes are adopted. All construction work conducted under a hazard mitigation project is subject to the current or vested construction codes at the time of permit application.
Development Code Including: zoning, critical areas, watercourses, wetlands, subdivisions, trees, Town Center development, and design standards.	City of Mercer Island – Community Planning & Development	Jeff Thomas	Hazards and mitigation opportunities are reviewed when extensive code amendments are made to the development code. Development for a hazard mitigation project is subject to the current or vested development regulations at the time of permit application.
Stormwater Management Program	City of Mercer Island – Public Works	Jason Kintner	Hazards and mitigation opportunities are reviewed when changes are made to the Stormwater Management Program.
Growth Management	City of Mercer Island – Community Planning & Development	Jeff Thomas	New policies adopted for growth management are reviewed for hazards or mitigation opportunities to protect the people and property on Mercer Island.
Public Health and Safety	Police Department Eastside Fire & Rescue Seattle-King County Public Health	Chris Sutter	Hazards and mitigation opportunities are reviewed when changes to public health and safety policies and procedures occur
Emergency Management Program Including Personal Preparedness Outreach	City of Mercer Island – Emergency Management	Amanda Keverkamp	Hazards and mitigation opportunities are routinely reviewed as part of the Emergency Management Program including informing the public of the hazards.

Entities Responsible for Hazard Mitigation

Agency/Organization	Point of Contact	Responsibility(s)
Emergency Management	Amanda Keverkamp	Emergency Manager
Public Works Department	Jason Kintner	Director
Community Planning and Development Department	Jeff Thomas	Director
City Manager's Office	Ali Spietz	Director

National Flood Insurance Program

National Flood Insurance Program Compliance

What department is responsible for floodplain management in your community?	Public Works
Who is your community's floodplain administrator? (title/position)	Public Works Director (Chief of Operations)
What is the date of adoption of your flood damage prevention ordinance?	June 30, 1997 FEMA classified Mercer Island as a Zone C (minimal Flood Hazard) However, Mercer Island Participates in the NFIP
When was the most recent Community Assistance Visit or Community Assistance Contact?	None
Does your community have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are?	No
Do your flood hazard maps adequately address the flood risk within your community? If so, please state why.	Yes
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of training/assistance is needed?	No
Does your community participate in the Community Rating System (CRS)? If so, what is your CRS Classification and are you seeing to improve your rating? If not, is your community interested in joining CRS?	No
How many Severe Repetitive Loss (SRL) and Repetitive Loss (RL) properties are located in your jurisdiction?	SRL: None RL: None
Has your community ever conducted an elevation or buy out of a flood-prone property? If so, what fund source did you use? If not, are you interested in pursuing buyouts of flood prone properties?	No

Hazard Mitigation Strategies

Over the last five years, Mercer Island City Leadership has placed an increased emphasis on updating, upgrading, reinforcing, or creating redundancies in City infrastructure, including critical infrastructure. A number of the strategies identified in the 2020 Hazard Mitigation Plan update have either been completed or are in the process of being completed. A few are ongoing projects.

2020 Hazard Mitigation Strategy Status

STRATEGY	DESCRIPTION	PRIORITY	STATUS
MI-2020-1	Replace Fire Station 91 electric roll-up doors with bi-fold doors which are fast opening and manually operable if damaged by an earthquake.	1	Targeted for inclusion in the 2027-28 Biennial Budget.
MI-2020-2	Purchase and install a larger generator to fully power the entire MICEC facility.	2	In progress; scope is being updated to better serve the City and community in light of the permanent closure of City Hall and temporary relocation of the EOC to the MICEC.
MI-2020-3	The City must ensure that access is maintained for public safety. During a catastrophic event, transportation to and from Mercer Island may be significantly impacted. Maintaining access for public safety is critical.	3	Ongoing.
MI-2020-4	Reinforce columns under west wing of City Hall and the entrance / egress into and out of the Emergency Operations Center (EOC).	4	Permanently paused. In 2022, the City had the columns inspected for structural integrity. It was found that the area of concern had no underlying structural concern. However, in 2023, City Hall was permanently closed due to the discovery of asbestos in the building's HVAC system.
MI-2020-5	The chimney on the Luther Burbank Boiler Building, located in one of the City's most popular parks, is not to code and may collapse, causing a risk to the public from falling brick.	5	Complete. In 2024, the City began renovating the Boiler Building including: installation of a new roof and seismic retrofits to stabilize the brick building and chimney, and construction of a new rooftop deck on the annex.
MI-2020-6	The city-owned docks at Luther Burbank Park, Groveland Park, Clarke Beach and the Boat Launch are susceptible to damage from seiches. Without these docks our Marine Patrol will be	6	In progress.

	limited in function. Additionally, supplies arriving by boat may not be able to be offloaded without the use of these docks.		
MI-2020-7	As it currently stood, the City's fiber infrastructure was unable to link critical facilities and provide failover communications, affecting City operations.	7	Complete.
MI-2020-8	The City's critical infrastructure – water and sewer lines – may fail in an earthquake. The City needs to create redundant lines to help reduce the impact or prevent the community's water and sewer lines from failing.	8	Ongoing.
MI-2020-9	There is currently only one emergency well located on the north end of the Island, leaving south end Island residents with limited ability to access drinking water after a major earthquake.	9	Ongoing.
MI-2020-10	Damage to stormwater system may cause stormwater pipes to fail resulting in urban flooding for residents.	10	In progress; scope updated.

2025 Hazard Mitigation Strategies

STRATEGY	LEAD AGENCY/POC	TIMELINE	PRIORITY	HAZARDS ADDRESSED
MI-2024-1 Design and Construct New Water Transmission Line	Jason Kintner, Public Works	2025-2030	High	Earthquake Urban Flooding Landslides Extreme Weather
MI-2024-2 Replace Backup City Communications Equipment	Alfredo Moreno, IGS	2025-2028	Medium	Earthquake Extreme Weather Civil Disturbance Cyber Attack Public Health Emergency Terrorism
MI-2024-3 Public Works Building Seismic Retrofit	Jason Kintner, Public Works	2025-2026	High	Earthquake Flood Landslide Extreme Weather Wildfire Cyber Attack Dam Failure Hazardous Materials Incident Public Health Emergency Seiche
MI-2024-4 Watercourse Rehabilitation and Stabilization	Elayne Grueber, Public Works	2025-2030	High	Earthquake Urban Flooding Landslide Extreme Weather
MI-2024-5 MICEC Generator	Jaime Page, Public Works	2025-2028	High	Earthquake Extreme Weather

MI-2024-6 Public Safety and Maintenance Building and EOC	Jessi Bon, City Manager	2025-2030	High	Earthquake Flood Landslide Extreme Weather Wildfire Cyber Attack Dam Failure Hazardous Materials Incident Public Health Emergency Seiche
MI-2024-7 Second Emergency Well / South End	Alaine Sommargren, Public Works	2025-2030	Medium	Earthquake
MI-2024-8 Fire Doors	Jaime Page, Public Works	2027-2028	High	Earthquake

Hazard Mitigation Strategies

Project MI-2024-1: Design and Construct New Water Transmission Line

Lead Points of Contact	Partner Points of Contact	Hazards Mitigated / Goals Addressed	Funding Sources and Estimated Costs
Jason Kintner Alaine Sommargren	• Seattle Public Utilities	• Earthquake • Urban Flooding • Landslides • Extreme Weather	$19M Design Construction Monitor

Strategy Vision/Objective

In an earthquake, waterlines will likely fail. Identifying aging infrastructure and replacing pipes at greater risk of failure will mitigate future risk to the water distribution system. In 2023 and 2024, the City faced two emergencies relating to the water infrastructure system. It is a priority of the City to address the aging water infrastructure system.

Mitigation Strategy

Seattle Public Utilities (SPU) is the sole provider of potable water to Mercer Island. Water is provided by SPU via 24-inch water transmission line traveling across the East Channel, through the Mercer Island Boat Launch and East Mercer Way, then west along SE 40th Street, through steep and difficult-to-access terrain. Access to areas of the pipeline is very difficult, as the 24-inch water main is located under a steep slope, and in close proximity to high- and low-pressure natural gas pipelines.

To improve the resilience of the water transmission line, the City would replace 3,500 feet of concrete cylinder pipe with 4,800 feet of earthquake resistant ductile iron pipe in a new location. Moving the critical 24-inch transmission line out of the SE 40th Street corridor and converting to a City-owned asset would consolidate control with responsibility, provide a more resilient and reliable water supply line, and reduce risk in a vulnerable area.

2-Year Objectives:	5-Year Objectives:	Long-Term Objectives:
• Prepare a project to design and construct a new 24-inch ductile iron transmission line in the 2025-2030 Capital Improvement Plan. • Allocate funding.	• Complete identified project.	• Improve resilience of water transmission line.

Implementation Plan/Actions:

- Prepare project design. Allocate capital funding to design and implement the projects

Performance Measures

Successful design, construction and operation of section of water transmission line.

Project MI-2024-2: Replace Backup City Communications Equipment

Lead Points of Contact	Partner Points of Contact	Hazards Mitigated / Goals Addressed	Funding Sources and Estimated Costs
Alfredo Moreno		• Earthquake • Extreme Weather • Civil Disturbance • Cyber Attack • Public Health Emergency • Terrorism	$14-100K

Strategy Vision/Objective

The City's communication infrastructure – radio system – is aging and in need of replacement or repair. The radio system is the City's last line of communications during a major or long-lasting disaster like an earthquake.

Mitigation Strategy

The City's communication infrastructure is an important component of the City's emergency and disaster response plan. City staff have identified two potential approaches for replacing or repairing, as a back-up, the radio system.

Full Radio System Replacement. New antennas at the City Reservoir and Station 92, new repeaters at both sites, and 25 new mobiles (the maximum our license allows) purchased and programmed. Purchase of radios, setup, and programming would be done in house. Cabling would be done with an outside vendor. Estimated costs range from $58 - $100K depending on how much of the work can be completed in-house.

Partial System Repair. The fastest way to bring the system online and use as proof of concept if we elect to expand it, however, radio coverage on the southern half of the island might be spotty. Relighting the City Reservoir site with a new repeater, relocate wiring, and purchase new batteries for existing mobiles. The work would be done in house. Estimate comes out to about $14k.

2-Year Objectives:	5-Year Objectives:	Long-Term Objectives:
• Identify grants to help fund the replacement of the radio system or allocate capital funding to design and implement.	• Complete identified projects.	• Maintain radio communications system at a level capable of providing long-lasting support for the City.

Implementation Plan/Actions:

- Identify grants to help fund the replacement of the radio system or allocate capital funding to design and implement the project.

Performance Measures

Successfully replace or repair and maintain aging communications system. Test regularly.

Project MI-2024-3: Public Works Building Seismic Retrofit

Lead Points of Contact	Partner Points of Contact	Hazards Mitigated / Goals Addressed	Funding Sources and Estimated Costs
Jason Kintner Alaine Sommargren		• Earthquake • Flood • Landslide • Extreme Weather • Wildfire • Cyber Attack • Dam Failure • Hazardous Materials Incident • Public Health Emergency • Seiche	$1.1M

Strategy Vision/Objective

Several sections of the Public Works building's roofs and foundation require seismic retrofit to reduce the risk of failure during a large-scale earthquake. The Public Works facility houses essential services including 64 City employees from Right-of-Way, Stormwater, Sewer Utility, Water Utility, Parks Maintenance, Engineering, and other service teams. The Public Works facility also serves as the City's only workshop and fleet mechanic facility.

Mitigation Strategy

The facility has reached the end of its useful life. Make the minimum necessary seismic repairs to keep the Public Works building safely in operation in the short-term, while City Leadership and Elected Officials explore replacing it with a Public Safety and Maintenance Building (see Project MI-2024-6: Public Safety and Maintenance Building and EOC). The seismic retrofit project would include:

- Completely remove the existing green roof and accumulated soil.
- Fully replace the roof once the green roof and soil are removed, and the retrofits to secure the roof to the walls are completed.
- Install anchoring between the walls and the wood diaphragms at the two higher level roofs (the second-floor office space and high bay garage).
- Install a subsurface concrete-grade beam along the exterior at each end of the high-bay garage doors.
- Retrofit numerous unbraced interior concrete masonry unit walls throughout the building.

2-Year Objectives:	5-Year Objectives:	Long-Term Objectives:
• Appropriate $1.1M and authorize staff to proceed with repair projects. • Complete identified projects. • Temporarily relocate a portion of the Public Works staff to other locations during construction.	• Replace Public Works facility with Public Safety and Maintenance Building.	• Secure facility to house critical teams and essential services.

Implementation Plan/Actions:

- Allocate capital funding to design, implement, and complete the projects

Performance Measures

Successfully identify an option to reduce impacted roadways and limit access for public safety to provide efficient services.

Project MI-2024-4: Watercourse Rehabilitation and Stabilization

Lead Points of Contact	Partner Points of Contact	Hazards Mitigated / Goals Addressed	Funding Sources and Estimated Costs
Elayne Grueber Jason Kintner		• Earthquake • Urban Flooding • Landslide • Extreme Weather	$4.5M Design Construction Monitor

Strategy Vision/Objective

Mercer Island terrain is one large oval slope. The slopes along the Mercer Ways and in other areas may be susceptible to landslides and urban flooding when stormwater is not diverted properly. The City has undertaken a number of projects over recent years to mitigate these risks by assessing, rehabilitating, and stabilizing watercourse and stormwater drainage systems.

Mitigation Strategy

Undertake projects to rehabilitate and stabilize stormwater and watercourse across the Island, improving the City's resiliency against urban flooding, earthquakes, and further reducing landslide risk for the 2025-2030 Capital Improvement Project (CIP) period. Projects include:

- Evaluate and Install Stormwater Monitoring Instrumentation
- Conducting Stormwater Conveyance Condition Assessments
- Conduct Assessments of City-owned Ravines and Watercourses
- Stormwater System and Storm Drainage Improvement Projects
- Culvert Crossing Replacements on Slopes of Sections of West Mercer Way
- Watercourse and Drainage Improvement Projects

2-Year Objectives:	5-Year Objectives:	Long-Term Objectives:
• Design projects. • Construct projects. • Fund projects through 2025-2030 CIP.	• Construct projects.	• Continue to assess and identify areas that need rehabilitation and stabilization – this will be an ongoing process.

Implementation Plan/Actions:

- Allocate capital funding to design and implement the projects.

Performance Measures

Reduce urban flooding and landslide risk.

Project MI-2024-5: MICEC Generator

Lead Points of Contact	Partner Points of Contact	Hazards Mitigated / Goals Addressed	Funding Sources and Estimated Costs
Jaime Page Ryan Daly		• Earthquake • Extreme Weather	$1.2M Capital / Grant

Strategy Vision/Objective

Provide continuous power to MICEC to operate as an EOC, Emergency Shelter, and City Hall.

City Hall was permanently closed in October 2023 due to asbestos in the HVAC system. While most City staff work remotely, critical emergency operations including the EOC and the City's network server infrastructure have moved to the MICEC.

Mitigation Strategy

The MICEC has a 200 kw diesel generator on site that powers critical areas of the building (full use of kitchen, restrooms, gymnasium (dormitory), and emergency lighting that enables it to operate as a Red Cross Emergency Shelter. However, the current generator is not able to provide adequate power for the facility to operate as an EOC, Emergency Shelter (serving up to 300 clients), and City Hall.

In 2023, City staff began an assessment of the full capacity of the current generator, facility electrical capacities, and future generator needs.

To mitigate this risk, a 1,000 kw generator, a full-building transfer switch, and additional transformers would need to be installed close to the existing electrical vault and service entrance, which are located on the east side of the MICEC building. Additionally, the project plan will need to address concerns regarding hillside stability and water table levels.

The long-term goal is to build a Public Safety and Maintenance Building, complete with an EOC (see mitigation strategy MI-2024-6: Public Safety and Maintenance Building and EOC), but the need for the MICEC to be able to operate as a full-service emergency shelter will remain unchanged.

2-Year Objectives:	5-Year Objectives:	Long-Term Objectives:
• Develop design and construction cost estimate • Determine funding amount and implementation timetable • Provide funding outline for system implementation	• Use MICEC as mid-term EOC as plans take shape for City Hall replacement (see mitigation strategy MI-2024-6: Public Safety and Maintenance Building and EOC)	• Continue to use the MICEC as an Emergency Shelter with option to serve as a backup City Hall per the City's COOP/COG plans

Implementation Plan/Actions:

- Develop design and cost estimate
- Determine funding amount and implementation timetable
- Secure the funding source/s – Apply for FEMA Hazard Mitigation Assistance grant – if that is not an option include in study in 2025-2026 Biennial CIP – Allocate capital funding to design and implement projects
- Bid project
- Award bid
- Construct complete project scope

Performance Measures
Quarterly tests with generators to confirm capabilities. Annual drills on Emergency Shelter plan as well as EOC activation exercises.

MI-2024-6: Public Safety and Maintenance Building and EOC

Lead Points of Contact	Partner Points of Contact	Hazards Mitigated / Goals Addressed	Funding Sources and Estimated Costs
Jessi Bon		• Earthquake • Flood • Landslide • Extreme Weather • Wildfire • Cyber Attack • Dam Failure • Hazardous Materials Incident • Public Health Emergency • Seiche	Staff have engaged an architectural consulting team to begin the pre-design work and cost estimates for the facility.

Strategy Vision/Objective

City Hall was permanently closed in October 2023 due to asbestos found within the HVAC system in April 2023. As a result, City services and critical staff have been consolidated to the remaining City facilities – Public Works facility, MICEC, Luther Burbank Administration Building, Police Portable Complex, and other smaller City buildings – and most City staff working in a hybrid environment.

Prior to April 2023, the EOC was in constant ready state at City Hall. After the closure of City Hall, the EOC now is set up on an as-needed basis in a spare room at the MICEC. In addition to serving as an EOC and back-up City Hall, the MICEC also acts as the City's main Emergency Shelter site – serving up to 300 clients. When an Emergency Shelter or warming/cooling center is activated, the EOC has limited capacity to operate, with one other on-Island option to relocate to. As such, the City may be unable to maintain the EOC, City operations, and a full Emergency Shelter and disaster response may be severely compromised.

Mitigation Strategy

Design and build a Public Safety and Maintenance Building to house the EOC, Public Works, Police, and IT. Design and build the facility to meet risk category level 4 building standards (designed for 50% larger seismic forces than the average building) to serve as a lifeline to the community in the most extreme circumstances, and continuity of operations for the work groups housed at this facility.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
• Finalize design and construction plan • Fund project • Begin construction	• Construct facility	• Complete operation and safety plans • Occupy facility

Implementation Plan/Actions

- Work with architectural consulting team to finalize building design.
- Identify funding mechanism.
- Construct & complete facility.
- Complete operation and safety plans.
- Occupy facility.

Performance Measures

Test operation and safety plans. Conduct annual EOC exercise.

Project MI-2024-7: Second Emergency Well / South End

Lead POC	Partner Points of Contact:	Hazards Mitigated / Goals Addressed:	Funding Sources / Estimated Costs $4.2M:
Jason Kintner Alaine Sommargren Allen Hunter	• Seattle Public Utilities (SPU) • Department of Health • King County • Department of Ecology • Department of Fish and Wildlife • Army Corp of Engineers	• Earthquake	• Feasibility • Design • Permitting • Construction • Operations

Strategy Vision/Objective

The City must ensure adequate water is secured for existing and future needs. The North Emergency Well can supply 1 gallon of potable water a day per resident during emergency events.

Mitigation Strategy

The City must ensure adequate water is secured for existing and future needs. In 2006 the City filed a water right application with the Washington State Department of Ecology to permit and develop two stand-alone emergency source supply wells: one located in the north, and one located in the south of the Island, which would be installed on a phased basis. The City's decision to purse the emergency supply wells was based on its assessment that the City's water system, as well as its water supply from SPU, was at significant risk of damage and disruption in the event of a major seismic event.

The City proposed that the emergency supply wells be accessible on a temporary, walk-up basis by residents and requested a combined instantaneous quantity (Qi) of 400 gpm and annual quantity (Qa) of 66.3 aft. The purpose of requesting the (above) amounts was to ensure an emergency supply capable of providing up to 1 gallon per day (gpd) for City residents and visitors over a period of 7 to 90 days.

A permit to install and operate the two emergency wells for "Standby-Reserve use only" was issued by Department of Ecology in December 2009. The permit authorized the requested quantities and a well development. In August 2022, Department of Ecology granted its approval to the City to extend the timeline for construction of the second well to July 2032.

A second well will provide a redundancy to ensure residents have access to water. The second well will be in a different location, providing two sources of emergency water should roads and access be significantly restricted.

2-Year Objectives:	5-Year Objectives:	Long-Term Objectives:
• Complete feasibility	• Design/Construction • Fund through capital program	• Secure Funding • Construction • Complete operation plan

Implementation Plan/Actions:

- Fund feasibility study to evaluate options to assess location.
- Apply for an Advanced Assistance grant for design and construction from FEMA Hazard Mitigation Assistance through DR 4418 in 2019 and PDM 2019
  - If FEMA grant applications are unsuccessful
- Include project design /construction in future City Capital Improvement Plan (CIP)
- Identify funding mechanism through water utility

• Construct & complete operation plan • Include in future updates to Water System Plan
Performance Measures Successful design, construction and operation of second emergency well on the south end of the Island.

Project MI-2024-8: Fire Doors

Lead Points of Contact	Partner Points of Contact	Hazards Mitigated / Goals Addressed	Funding Sources and Estimated Costs
Jaime Page		Earthquake	~400K/Grants or Capital Budget

Strategy Vision/Objective

Station 91 has five vehicle bays with electric roll-up doors that need to be replaced with doors similar to those at Station 92. Station 92 has bi-fold doors which are fast opening and manually operable if damaged by an earthquake shifting the building.

Mitigation Strategy

An earthquake impacting the ability to move fire apparatus out of the station will hinder emergency life-saving response following an earthquake. Bi-fold doors with the ability to manually open will assist with emergency response. The current fire doors at Station 91 have the potential for structural damage which may not allow the doors to be manually opened thus necessitating the need to drive the fire apparatus through the doors, damaging the vehicle as well as destroying the doors, and causing a security risk at station 91.

2-Year Objectives	5-Year Objectives	Long-Term Objectives
• Secure the funding source(s) • Structural review for bi-fold doors • Publish RFP • Select vendor • Make changes required to install bi-fold doors • Install doors		

Implementation Plan/Actions

- Secure the funding source(s): Apply for FEMA Hazard Mitigation Assistance grant. If unavailable, include in 2027-2028 Biennial CIP allocating capital funding to design and implement project.
- Structural review for bi-fold doors
- Publish RFP
- Select vendor
- Make changes required to install bi-fold doors
- Install doors

Performance Measures

Research has shown that bi-fold doors withstand earthquake damage better then overhead opening doors. Structural damage from the necessity of driving through the doors could prevent a return to the apparatus bay by apparatus preventing the apparatus from hooking up to air and battery chargers that keep them in service.