

# City of Renton Plan Annex

## Introduction

### Brief History

Originally an important fishing area for Native Americans, Renton experienced a migration of people of European descent in the 1850s, leading to the displacement of the Duwamish people. As the influx of settlers continued, the early Renton economy developed around coal, timber, and clay production from the surrounding hills. In 1911 a major flood provided the impetus for diverting the channel of the Cedar River to prevent future flooding in the city. The building of the Renton Boeing plant during World War II brought thousands to Renton for jobs. Renton is also home to several other major corporations and important regional government facilities.

### Climate

Renton’s climate is moderate. Mild winters, an average of 154 precipitation days per year, with warm, dry summers. Annual average temperatures range from 36 to 79 degrees, rarely below 28 or above 87 degrees. Annual rainfall is 42 inches. Monthly precipitation varies from 6 inches in November to January to under an inch in July and August. Average annual snowfall is 11 inches. Humidity varies between 44 percent and 95 percent in summer and winter, respectively. Winds vary and prevail from the south/southeast at an average speed of 7 mph, seldom over 22 mph.

### Development Trends and Demographics

Renton has a mix of land uses. Industrial and commercial uses are primarily in the Green River Valley and downtown Renton. The city center includes mixed-use residential and commercial land, with single and multi-family homes. Single family residences dominate the eastern and southeastern portions of the city, where most residential growth has occurred. There are pockets of mixed-use commercial centers aimed at providing services for residents along the eastern edges of the city.

The Comprehensive Plan provides a vision for Renton’s development 20 years into the future. The vision includes an emphasis on infill development in existing neighborhoods and an increase in multi-family housing in the downtown area rather than sprawl. This infill has increased the number of residents living in both the 500-year floodplain of the Cedar River and the high liquefaction earthquake risk area in downtown Renton. The new Longacres development plan will add 3,000 homes to the Green River floodplain, an area also classified as having a high liquefaction risk. As the city's population and development continue to grow, more people and property will be exposed to flooding and earthquake hazards. With the population growth and associated high language diversity in the city, this creates challenges in communicating risk to the increasing number of residents who speak English less than very well.

### City of Renton Profile

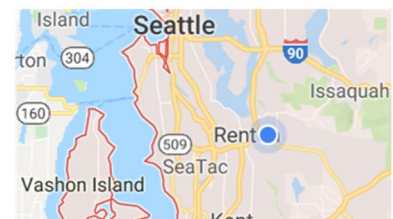
Date of Incorporation:  
9/6/1901

Governance: Optional  
municipal code city governed  
by a mayor/council form of  
government

Population as of 4/1/2024:  
108,800

Area: 25 square miles

Location and Description:  
Western Washington State,  
Central Puget Sound, South  
King County



### Jurisdiction Point of Contact/ Plan Prepared By:

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Entity: City of Renton  
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# City of Renton Risk Summary

## Hazard Risk and Vulnerability Summary

HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
Avalanche	n/a	n/a	n/a
Civil Disturbance	<p>Civil disorder may result from many situations and encompass a broad spectrum of civil action that ranges from peaceful events to other forms of disturbance caused by a group of people. The severity of such disturbances often reflects the degree of public displeasure or expression of discontent. Examples of civil disorder include but are not necessarily limited to: violent demonstrations and other forms of obstructions, riots, sabotage, and other forms of crime. Civil disorder can be a dangerous condition that can become increasingly chaotic and volatile.</p>	<p>Civil disorder can erupt anywhere but the most likely locations are those areas with large population groupings or gatherings. Sites that are attractive for political rallies or offices should be viewed as potential locations for the epicenter of civil disorder events.</p>	<p>Disruption of critical infrastructure may occur during very severe civil disorder events. Public services such as water, power, communication, and transportation may be temporarily unavailable.</p>



HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<b>Cyber Incident</b>	A cyber incident is defined by the Department of Homeland Security (DHS) in the 2016 National Cyber Incident Response Plan as “an event occurring on or conducted through a computer network that actually or imminently jeopardizes the confidentiality, integrity or availability of computers, information on communication systems or networks, physical or virtual infrastructure controlled by computers or information systems, or information resident thereon.”	Wherever information technologies exist and are used, cyber incidents can occur. As the county becomes more and more dependent on its information technology (IT) infrastructure it also becomes more vulnerable to IT related disruptions. Most cyber incidents can be categorized as malicious attacks, human errors, or system glitches. More than 50% of the incidents are estimated to be caused by malicious or criminal attackers.	Minor cyber incidents that are detected early and quickly recovered may briefly disrupt daily operations before fully contained but will not have a significant impact on the city. A significant incident can have a major impact not only on the city but on the county and the region. Such incidents may result in safety and health risks, financial losses for the city and the region, reputational damage, and inability to comply with regulatory requirements including penalties and fines. It may also affect the city’s ability to achieve critical strategic objectives and fulfill executive priorities.
<b>Dam Failure</b>	There are two major dams in Renton, on the Green River and Cedar River respectively, and numerous levees along both rivers. A failure of either a dam or a levee would cause severe flooding not seen since the two dams were built. A dam failure with a full-pool scenario will likely be much more severe than a typical flooding scenario.	Renton is near or at the end of the drainage basin for the Green River and the Cedar River. As a relatively low-lying area, it becomes the collector for floodwaters along those rivers. The Green River Valley is a thriving commercial and industrial area. The area around the Cedar River is primarily residential development. There are schools and several senior residential communities in the floodplain. There is great potential for loss of life for those not able to evacuate ahead of the floodwaters.	In the Green River Valley hundreds of millions of dollars of real property would be destroyed in Renton, primarily businesses, causing them to permanently close their doors, with a loss of revenue for the city. A Chester Morse Dam failure on the Cedar River would destroy hundreds of millions of dollars of mostly residential property, leaving many homeless.



HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<b>Earthquake</b>	<p>The city is subject to a major earthquake generated by the Seattle Fault to the north, and the Cascadia Subduction Zone offshore to the west, which is capable of generating an earthquake in the 8.0-9.0 range. Additional minor faults may generate smaller earthquakes, and faults further away can still cause damage.</p>	<p>Much of the historic downtown area is comprised of unreinforced masonry (URM) buildings that are vulnerable to collapse and present a life safety hazard. Most of Renton’s commercial development, including the historic downtown, is built on soils with high liquefaction risk. Many homes were built before seismic code was changed to acknowledge the seismic risk of the area, which will lead to extensive damage of many structures.</p>	<p>The city was damaged in 1965 from the 6.7 Puget Sound quake, with severe damage to the Boeing plant. In 2001 the city was again damaged by the 6.8 Nisqually quake, primarily cracked masonry and collapsed chimneys, but with no deaths in Renton. More structures and residents are at risk today because of multifamily infill development in the liquefaction zone.</p>
<b>Flood</b>	<p>Much of Renton’s commercial and institutional development is located within the floodplain of either the Green River or Cedar River, and a considerable amount of residential development within the Cedar River floodplain. 6.35% of the total land area of the city is within the Special Flood Hazard Area. The city has good floodplain management regulations and has limited development; however, there are many structures already present in the floodplain.</p>	<p>Renton is near or at the end of the drainage basin for the Green River and the Cedar River. As a relatively low-lying area, it becomes the collector for floodwaters along those rivers. The Green River Valley is a thriving commercial and industrial area. The annual risk of a catastrophic flood in that area is 1:140. The area around the Cedar River is primarily developed as residential. There are schools and several senior residential communities in the 100-year floodplain, as well as the city’s largest employer. The historic downtown area is located within the 500-year floodplain.</p>	<p>In the last two decades, the city has experienced repeated moderate flood events causing nearly \$22 million in damages and response costs. As climate change and development have altered the floodplain, more structures are thought to be at risk to a similar event today.</p>



HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<p><b>Hazardous Materials</b></p>	<p>Hazardous materials releases are one of the most common incident types. They can occur due to an accident or be secondary to other primary hazards such as a terrorist attack, earthquake and volcanic activity, severe flooding, and fires. There are frequent smaller spills and releases that result from day-to-day human activities including loading dock and warehouse accidents, careless handling, traffic accidents, and illegal activities like drug labs. There is also the threat of a major release from a massive spill or accident, either from a transportation incident, or from an accidental release at one of the many hazardous materials-using facilities in Renton, including Renton’s water treatment facilities. Two major pipelines traverse the city, and fuel storage facilities hold significant quantities of explosive or flammable fuels. There is also the threat of an intentional release or contamination from a terrorist attack. Additionally, past byproducts of industry have left some areas with chronic contamination, including two Superfund Sites within the city. Stormwater runoff can carry excess nutrients into waterways, and create toxic algal blooms.</p>	<p>Minor hazardous materials releases do not generally have a serious impact on life, property, or the environment. Although the risk of a major hazardous materials emergency is low, the population in general does not have the means to protect themselves against it beyond taking shelter in place or evacuation measures that may be ordered. Exposure to hazardous materials can result in serious illness, major organ damage, and death. Explosive hazardous materials not only can destroy public and private property but can seriously maim and kill people. The environment may be damaged for years or even decades and may be unable to be remediated for certain kinds of hazardous materials incidents. Major cultural sites may become inaccessible or unusable.</p>	<p>The impacts from hazardous materials are complex, including slow-acting releases as well as sudden catastrophes that kill or injure thousands. Although the likelihood of large numbers of fatalities from a single materials release is low, the effects can be devastating to impacted communities, the economy, and the environment.</p>



HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<b>Landslide/ Sinkholes/ Ground Subsidence</b>	Areas of steep slopes and high erosion hazard can be found throughout the city. As a former coal-mining town, many abandoned coal mines crisscross the underground landscape. There is a high-water table and some of the city’s soil types are known to be prone to landslide or subsidence.	Some landslide-prone areas had already been developed prior to institution of stricter regulations. The Maple Valley Highway has experienced repetitive landslide issues that have forced its closure at times. Smaller landslides occur more regularly in other areas of the city. Sinkholes in roadways and pipeline rights-of-way have occurred within the past five years. These hazardous incidents have the potential to injure or kill people, damage public and private property, and block transportation corridors.	Climate change predictions include shifting rainfall patterns to include greater bursts in short periods, thus increasing the landslide risk over time. As soils continue to settle, there will likely be an increase in the frequency of sinkhole formation and coal mine collapse, which can be related.
<b>Public Health Emergency</b>	Communicable disease outbreaks can be caused by many agents and transmitted in several ways. While public health measures have controlled many diseases in this country, there remains a risk from new agents such as new COVID-19 variants, novel strains of influenza, or severe acute respiratory syndrome (SARS) that emerge with the potential to cause outbreaks. Emerging conditions or novel diseases that have limited or no medical countermeasure (therapeutic or vaccine) pose as a high risk/low frequency event that has the potential to broadly impact health and medical capacity as well as disrupt critical resources and support infrastructure.	Periodic outbreaks, including COVID-19 and novel strains of influenza and other viruses are a likely hazard in Renton. The city’s connection to the global economy and the ease of national and international travel increases the potential for a new disease being introduced here. Additionally, natural disasters could result in displaced populations and mass sheltering, which increase the potential for communicable disease outbreaks. A portion of Renton's population is particularly vulnerable, including young children, the elderly, and individuals with preexisting medical conditions that may increase their risk to public health emergencies. When large numbers of the population are affected, they cannot work, and thus a public health emergency can generate supply chain and critical service shortages.	A public health emergency can lead to widespread impacts, including disrupted healthcare access, increased risk of infectious disease transmission, environmental contamination, mental health challenges, food insecurity, and worsening health inequalities. These effects are particularly severe for vulnerable populations and stem from disruptions to essential services and infrastructure.



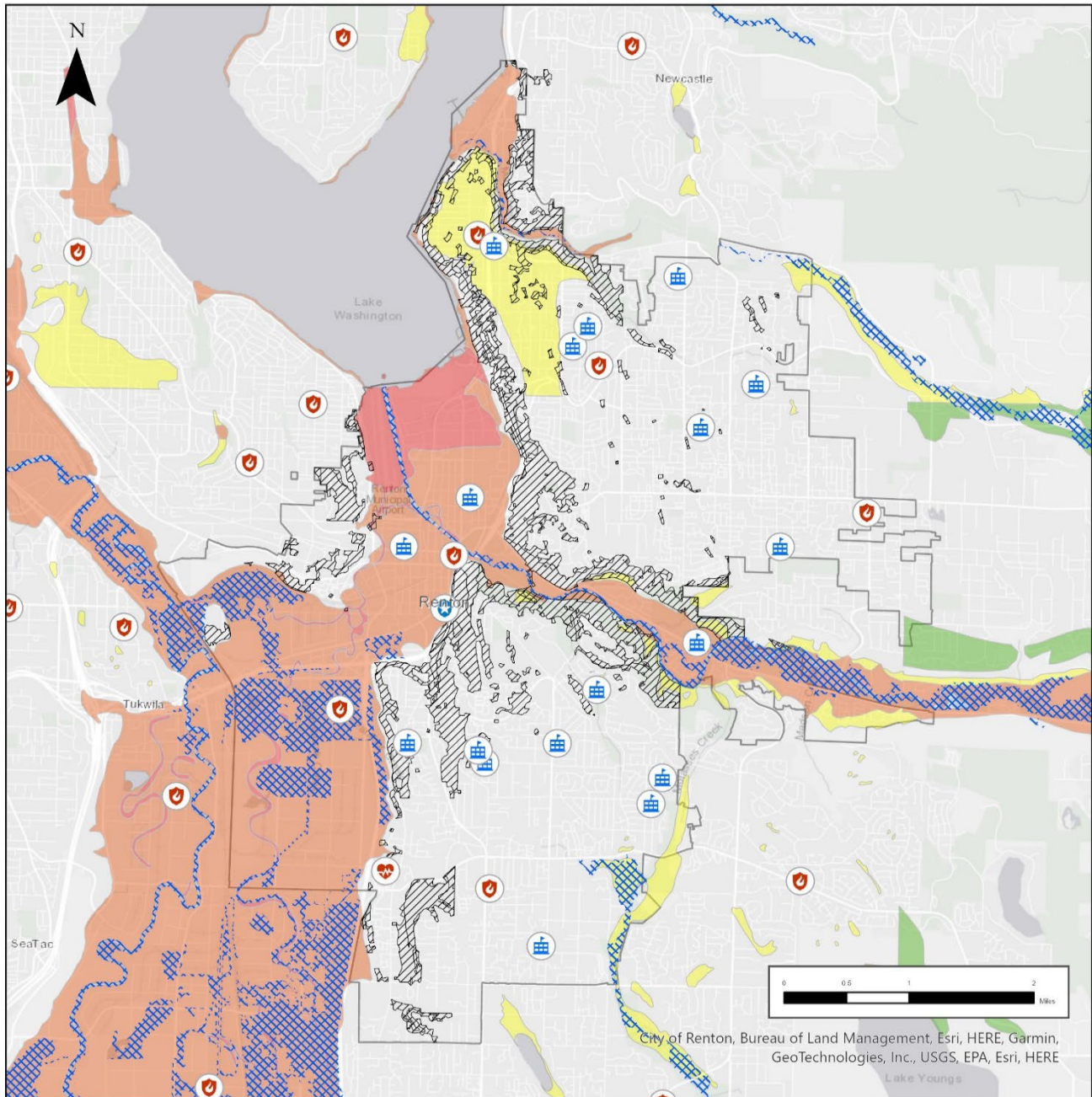
HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<p><b>Severe Weather</b></p>	<p>Tornados are rare in this region, but the city is prone to damaging high winds during seasonal storms. Trees frequently fall during such storms. Some neighborhoods are built entirely within large stands of tall trees. Lightning storms create additional risk of fire. High summer temperatures cause health problems for those without air-conditioning, and drought is a potential consequence. Freezing temperatures are not uncommon for several days in the winter, although prolonged hard freezes in the 20s or below are rare. Snow or ice are relatively common occurrences.</p>	<p>In Renton, most power lines are overhead rather than underground, and vulnerable to wind damage. This frequently causes power outages and road closures due to fallen trees. Snow and ice storms similarly lead to power loss, blocked roads, and hazardous conditions, increasing the risk of accidents and economic losses for businesses. Typically mild summers mean many homes lack air conditioning, heightening health risks for vulnerable individuals during extreme heat. Additionally, most homes do not have basements, limiting shelter options in the rare event of a tornado. Severe winter weather can leave residents housebound for days, restricting access to food, medications, and medical care. Freezing temperatures can burst pipes in businesses and homes, including fire sprinkler systems. In a major snow or ice event, the weight of accumulation can pose a risk of roof collapse. For Renton’s homeless population, exposure to extreme cold presents a direct threat to life if adequate shelter is unavailable.</p>	<p>Over time, the increasing average annual temperature will create additional health risks due to extreme heat and generate an increase in thunderstorm activity with lightning/wildfire risk and localized high winds, including tornado potential. The risk of drought could impact the city’s water supply, which is 98% dependent upon groundwater sources (wells and springs). Seattle Public Utilities provides approximately 2% of the city’s water supply. The city’s water utility supplies water to 73% of the total city area. The remaining 27% of the area within the city is served by adjacent water districts (Soos Creek Water and Sewer District, Water District #90 and others). Severe winter weather will continue to recur, causing transportation disruption, personal injury, economic injury, and property damage.</p>
<p><b>Terrorism</b></p>	<p>Terrorism falls into two categories: domestic terrorism and international terrorism. The threat of both has been increasing significantly since 9/11, particularly due to three specific factors: the internet, social media, and Homegrown Violent Extremists (HVE).</p>	<p>The form and locations of many natural and/or manmade hazards are identifiable and even, in some cases, predictable, however, there is no defined geographic boundary for terrorism. Based on previous historical events, it is presumed that critical facilities, services, and large gatherings of people are at higher risk.</p>	<p>Large gatherings are considered a soft target for terrorist attacks. The potential for mass casualties, the strain on medical and law enforcement resources, and the negative psychological effects of fear in the community are substantial. Hard targets of terrorism, like critical infrastructure, when affected, can jeopardize the health, safety, mobility, and communications capability for the entire city, and compromise other essential services and lifelines.</p>



HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<b>Tsunami/ Seiche</b>	The city would not be impacted directly by a tsunami, but it may experience seiches. Seiches may form on enclosed or semi-enclosed bodies of water (e.g., lakes, rivers, etc.) from wind, atmospheric pressure, or seismic waves. An earthquake would be the most likely cause of a seiche in Renton.	Many homes and businesses, including Boeing’s manufacturing facility, the Seahawks headquarters and practice facility, the Renton Municipal Airport, a King County Library, and many small businesses are located on the shores of the Cedar River or Lake Washington. Additionally, several roads and bridges are within reach of a seiche.	Structures near the water - including residential and commercial buildings, roads, bridges, and other infrastructure - may be impacted by a seiche, leading to injuries, loss of life, property destruction, and damage to public infrastructure
<b>Volcano</b>	Although the city is outside of a direct lahar flow from any volcano, secondary flooding on the Green River could be the result of a Mt. Rainier eruption. Mt. Rainier, and potentially other area volcanoes, depending on wind direction, can generate ashfall that significantly impacts the City of Renton.	Ashfall causes premature wear and failure of automobile engines and electronics. It disrupts air travel, shorts out electricity on power lines causing widespread power outages, clogs gutters, causes property damage, accumulates on flat roofs creating roof collapse risk, creates slippery road surfaces resulting in traffic accidents, and triggers significant health issues in vulnerable individuals.	The risk of an ashfall event from the nearest volcano, Mt. Rainier, remains constant over time. The power outages, damage to homes and businesses, compromised automobiles and electronics, and health risks to some residents would have a significant impact on the city.
<b>Wildfire</b>	Power lines, railroad cars, structure fires, lightning, and human behavior can start fires anywhere. Parts of the City of Renton are heavily treed or covered in brush, and some are in the Wildland-Urban Interface putting residents and businesses there even more at risk.	Some areas of Renton have poor evacuation options and limited access for fire apparatus. A wind-driven structure fire like the Regency Woods apartment fire of 2014 can rapidly engulf neighboring homes, trapping residents in areas without sufficient road capacity to handle an evacuation and threatening critical electrical infrastructure.	As climate change generates higher average temperatures annually and increased drought risk, the fire danger for Western Washington is increasing. Climatologists predict that eventually Western Washington fire risk will equal that of the much drier and historically fire-prone Eastern Washington.



## Hazard and Asset Overview Maps



### Flood Zones

1% Annual Flood Hazard (100 year floodplain)

### Landslide Hazards

Moderate to Very High

### Liquefaction

High

Moderate to High

Low to Moderate

Low

### Points of Interest

Fire Station / EMS Station

Hospital

Police

Office of Emergency Management

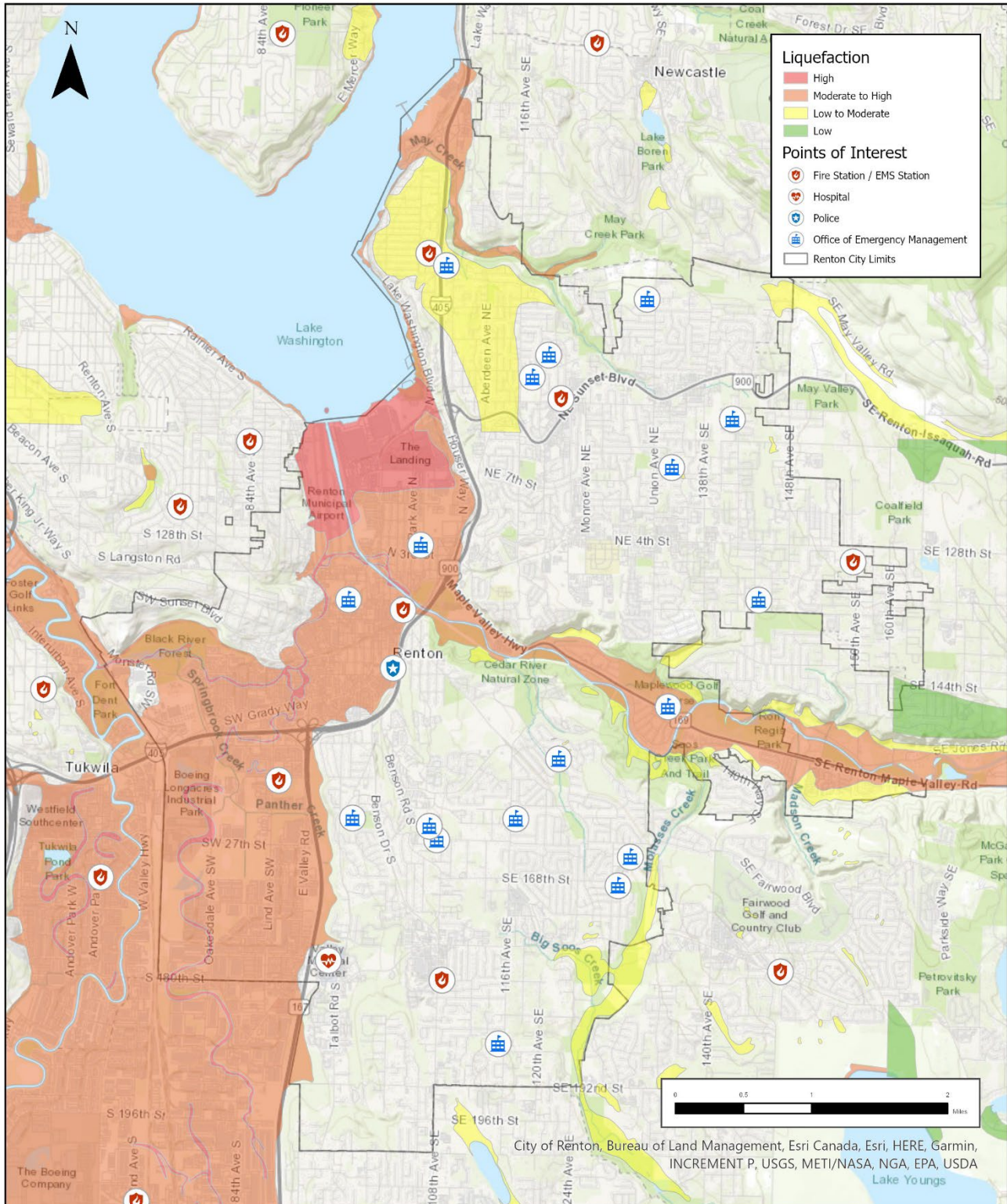
Renton City Limits



# City of Renton Hazard Areas

Figure 1: Composite hazard map of Renton.

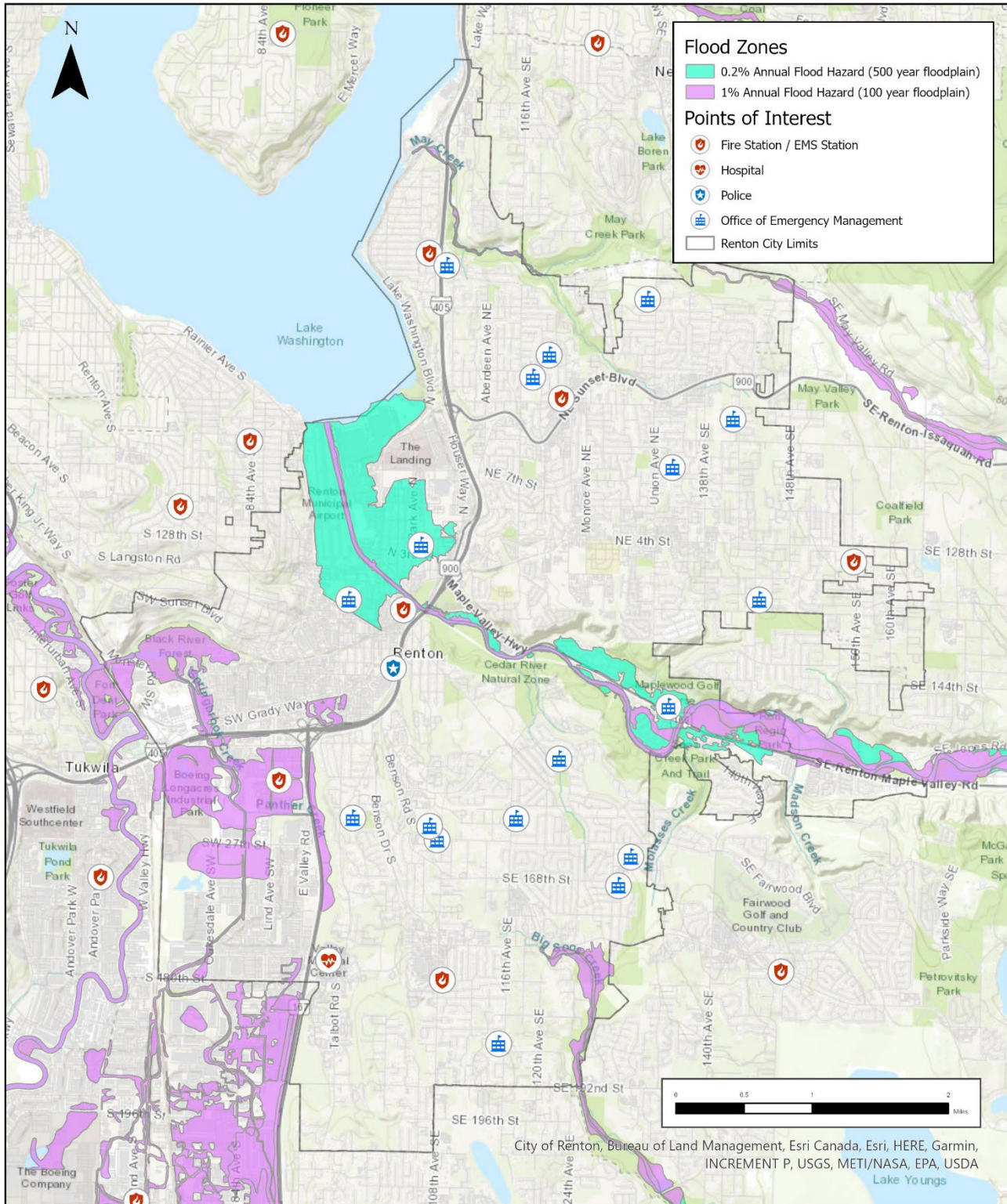




## Sensitive Areas Liquefaction Susceptibility

Figure 2: Earthquake liquefaction susceptibility.

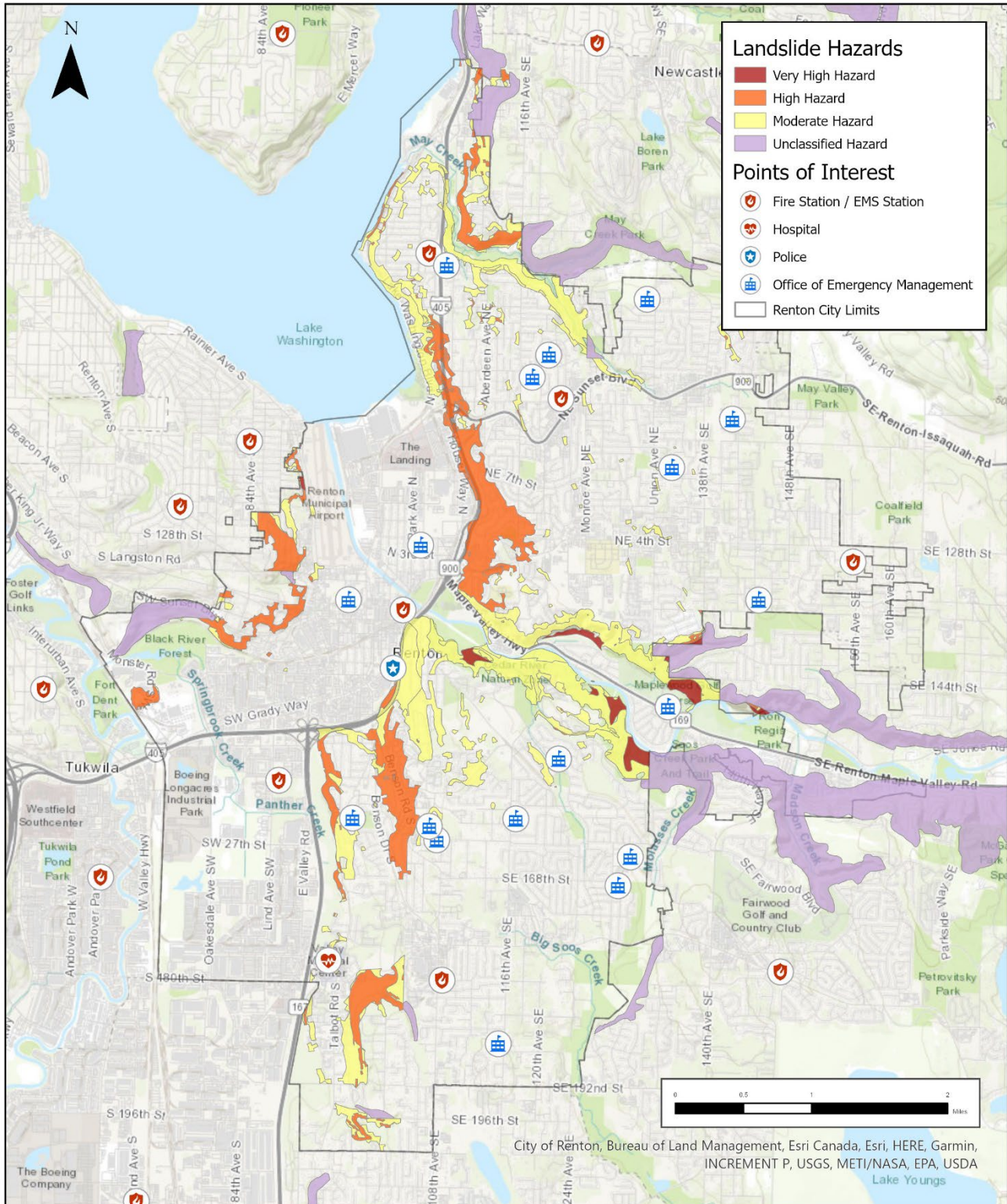




## Sensitive Areas Flood Hazard

Figure 3: Flood hazard areas in the mapped floodplains.

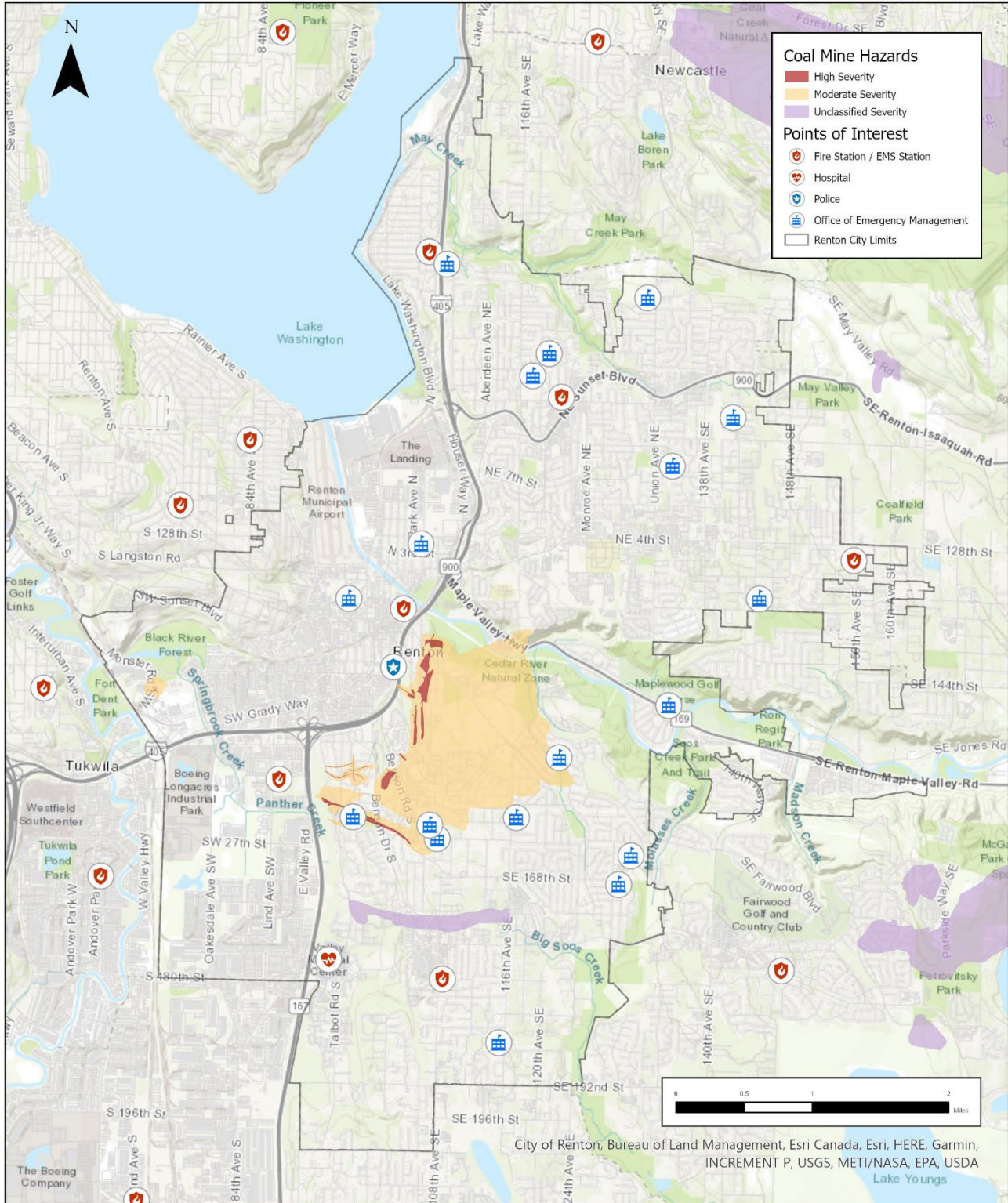




## Sensitive Areas Landslide Hazard

Figure 4: Known landslide hazard areas.





## Sensitive Areas Coal Mine Hazard

Figure 5: Known coal mine hazard areas.



## City of Renton Assets at Risk

ASSET	VALUE (\$)	HAZARD SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<b>Fire Stations</b>	\$59,694,672	Fire stations in Renton may be affected by many hazards including earthquake, flooding, liquefaction, and wildfire. There are seven stations spread across the city, each may face varying degrees of the hazard based on its proximity to fault lines, flood-prone areas, liquefaction zones, and potential wildfire areas.	Six fire stations have been retrofitted with modern building code standards designed to reduce vulnerability to earthquakes, however one remains to be updated. The fire stations are structurally susceptible to earthquake, flooding, liquefaction, and wildfire.	Damage to a fire station from any of the aforementioned hazards could lead to operational downtime, reducing emergency response capabilities for the entire city. Structural damage would necessitate costly repairs or temporary relocation of staff and equipment. Water damage could impact firefighting equipment and vehicles.
<b>Urgent Care Clinics and Hospitals</b>	\$6,564,900	Urgent care clinics and hospitals in Renton may be affected by hazards such as earthquakes, floods, severe storms, cyber incidents, and pandemics. There is one urgent care clinic and one hospital across the city, each facing varying degrees of susceptibility to fault lines, flood-prone areas, power outages, cyber-attacks, and patient surge capacity.	Urgent care clinics and hospitals are vulnerable to structural damage as well as functional disruptions. These clinics and hospitals rely heavily on medical supplies and electricity, making them vulnerable during power outages and supply chain disruptions. In a pandemic, shortages of staff and supplies, and increased patients can worsen these vulnerabilities.	Damage to urgent care clinics and hospitals could disrupt critical healthcare services for the community. Structural damage may necessitate repairs or even temporary closures, reducing local healthcare capacity. Power outages may disrupt the delivery of medical treatments, delaying medical care. Pandemics may overwhelm urgent care clinics and hospitals and lead to wider public health impacts.
<b>Government Infrastructure</b>	\$20,506,687	Government infrastructure in Renton, such as City Hall and public works buildings may be impacted by hazards such as earthquake, floods, severe storms, and cyber-attacks. There are 20 of city-owned facilities across the city that are susceptible to fault lines, flood-prone areas, power outages, and cyber-attacks.	Government infrastructure in Renton that is not seismically retrofitted to modern standards is vulnerable to structural damage from earthquakes. Power outages from storms may disrupt city services. Reliance on digital systems makes government infrastructure vulnerable to cyber-attacks, which may impair city services.	Damage to government infrastructure may severely hinder the city's ability to provide essential services. Damages may require temporary relocation of services, disruption of operations, and delayed communication. Digital disruptions from a cyber incident may compromise critical systems and reduce the city's services.





ASSET	VALUE (\$)	HAZARD SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<b>Community Infrastructure</b>	\$6,127,924	Community infrastructure, including community and senior centers in Renton, may be affected by most hazards. There are two community centers and one senior center in Renton that are susceptible to fault-lines, flood-prone areas, power outages, and extreme weather.	Renton's community infrastructure is built to modern building codes. The centers are vulnerable to power outages, which disrupt building operations and communications. The centers serve at-risk populations who are more vulnerable during extreme weather events, which can result in serious health consequences.	Damage to these community infrastructure facilities could result in temporary closures, disrupting services and programs to the community, especially vulnerable populations who rely on these centers for social support, meals, and shelter.
<b>Schools</b>	\$1,168,853,362	Schools in Renton may be vulnerable to many hazards including earthquakes, floods, severe storms, and severe weather. There are 29 public schools and several private schools across the city that may be susceptible to fault-lines, flood-prone areas, power outages, and extreme heat and cold weather.	Renton school infrastructure is vulnerable to earthquakes, and 10 buildings are in the process of being retrofitted or built to modern building codes. School campuses are also vulnerable to flooding in low-lying areas and power outages due to storms. School infrastructure is also vulnerable in extreme weather, putting students and staff at risk in extreme heat and cold weather.	Damages to school infrastructure could lead to closures, disrupting education and creating safety concerns for all students and food insecurity for students who rely on schools for meals. Temporary relocation of school infrastructure or school closures could strain the school system and impact parents and the broader community. Disruption to power may disrupt heating, cooling, technology, and limit school activities.
<b>Roadways</b>	\$217,000,000	Roadways in Renton are exposed to earthquakes, flooding, landslides, and severe storms. There are 753 miles of roadways in Renton, which can be susceptible to fault lines, flood-prone areas, unstable soils, and severe weather.	Roadways in Renton are vulnerable to ground shaking and liquefaction during earthquakes and washouts and standing water in flood-prone areas impacting the integrity of road surfaces. Both severe storms and landslides may increase debris over roadways.	Damage to Renton's roadways may significantly disrupt transportation and hinder movement of people, goods, and emergency vehicles. Extensive damage may lead to lengthy road closures, repairs, and restricted access, which complicate evacuation routes and isolate neighborhoods. Prolonged road closures disrupt daily commuting and commercial activity, with economic consequences.



ASSET	VALUE (\$)	HAZARD SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<b>Bridges</b>	\$300,000,000	Bridges in Renton are exposed to earthquakes, flooding, landslides, and severe storms. There are 26 vehicle and one pedestrian bridges in the Renton Public Works bridge inventory, many of which span fault lines, flood-prone rivers, and areas of unstable soil. Severe weather conditions such as heavy rain, snow, and high winds also pose risks to bridge structures.	Many bridges in Renton are aging and eight have not been designed or retrofitted to withstand seismic activity and thus have been identified for further evaluation for seismic upgrades. 23 bridges in Renton cross rivers that are prone to flooding. Bridges in areas of unstable soil are at higher risk of damage due to landslide or liquefaction.	Damage to Renton's bridges could disrupt critical transportation routes for emergency response, critical resources, and daily commutes. Bridge closures could result in significant economic losses, delays in emergency services, and increased congestion on alternative routes.
<b>Drinking Water System (distribution reservoirs, pump stations, wells, and treatment systems)</b>	\$107,661,633	The Renton drinking water system consists of nine active wells and one spring water supply facility, with seven water treatment systems and a water treatment plant that serves three wells at the Maplewood Golf Course. There are 10 water storage reservoirs, 50 pressure reducing valve stations, 12 booster pump stations, and 318 miles of water distribution pipe system. The water systems in Renton are exposed to earthquakes, flooding, landslides, severe storms, and cyber incidents. The drinking water system can be susceptible to seismic events, flood-prone areas, unstable soils, severe weather conditions, and cyber-attacks.	The drinking water system is vulnerable to seismic and liquefaction activity. The water supply wells and spring, along with portions of the distribution system in Renton are located near rivers or low-lying areas at risk of flooding. Hazards such as landslides and severe storms can cause power supply outages or damage both above ground and underground infrastructure leading to potential contamination and service disruptions.	Damage to the Renton drinking water systems would have immediate and widespread impact on Renton's residents, businesses, and emergency services. A disruption in water supply or contamination of water sources could pose serious public health risks, limit firefighting capabilities, and affect critical facilities such as hospitals and schools. Recovery from severe damage to these systems could have long-term effects on the community and economy.



## Plan Update Process

To convene the planning team, the city expanded the existing Emergency Management Group’s membership, which has representation from each department and the Renton Regional Fire Authority. The invitation included subject matter experts who could contribute to the plan.

The planning process began with some staff attending the King County Hazard Mitigation Plan kickoff meeting and workshops. The planning team met twice in joint work sessions to review assets and infrastructure, to determine threats and assess risk, and to identify mitigation solutions to reduce those risks. Planning team members then worked outside the group session to develop the mitigation strategies that are included in this plan revision.

### *Jurisdiction Planning Team*

NAME	TITLE	ORGANIZATION	CONTRIBUTION
<b>Daniel Alexander</b>	Captain	Renton Regional Fire Authority	Strategy discussions, worksheets, share information, plan review
<b>Chris Barnes</b>	Transportation Operations Manager	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Ethan Belen</b>	Civil Engineer III	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Chester Bennett</b>	Civil Engineer	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Steve Brown</b>	Parks Maintenance Manager	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Sean Clagget</b>	Recreation Supervisor	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Sean Conway</b>	Recreation Supervisor	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Manuel Cruz</b>	Airport Director	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Alan Findlay</b>	Structural Plans Examiner	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Stephen Forsythe</b>	Street Maintenance Supervisor	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Abdoul Gafour</b>	Utility Engineering Manager	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Jayson Grant</b>	Pavement Management Technician	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Ian Gray</b>	Urban Forestry & Natural Resources Manager	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Brian Hammon</b>	Facilities Manager	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Matt Herrera</b>	Planning Director	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Cailin Hunsaker</b>	Parks & Trails Director	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>John Kalmbach</b>	Street Maintenance Manager	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Krista Kolaz</b>	Risk Manager	City of Renton	Strategy discussions, worksheets, share information, plan review



<b>Angel Laycock</b>	Communications Manager	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Katie Medina</b>	Civil Engineer	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Hannah Miller</b>	Admin Assistant to Executive Services	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Jeffrey Minisci</b>	Facilities Director	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Deborah Needham</b>	Emergency Management Director	City of Renton	Renton planning coordination, strategy discussions, worksheets, research, share information, plan review, RHMP Steering Committee lead Renton representative
<b>Laura Pettit</b>	Communications Director	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Curt Russell</b>	Senior Risk Management Analyst	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Robert Shuey</b>	Development Services Director	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Jennifer Spencer</b>	Recreation Director	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Ronald Straka</b>	Utility Systems Director	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>MJ Thomas</b>	Emergency Management Coordinator	City of Renton	Strategy discussions, worksheets, research, share information, plan review, RHMP Steering Committee alternate Renton representative
<b>Brett Tietjen</b>	Network Systems Manager	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Alex Tuttle</b>	Senior Assistant City Attorney	City of Renton	Strategy discussions, plan review
<b>Guy Williams</b>	Human Services Manager (Parks & Rec)	City of Renton	Strategy discussions, worksheets, share information, plan review
<b>Young Yoon</b>	IT Director	City of Renton	Strategy discussions, worksheets, share information, plan review



### Plan Update Timeline

PLANNING ACTIVITY	DATE	SUMMARY	ATTENDEES
<b>City of Renton Hazard Mitigation Planning Group Meeting</b>	2/1/2024	Introduction of Plan Review Tool and Hazard Mitigation Plan major revision timeline.	City of Renton Hazard Mitigation Planning Group
<b>City of Renton Hazard Mitigation Planning Group meeting</b>	4/11/2024	Update on timelines and expectations.	City of Renton Hazard Mitigation Planning Group
<b>RHMP Steering Committee</b>	4/18/2024	Equity and social justice discussion.	Renton Hazard Mitigation Planning Group lead
<b>RHMP Steering Committee Meeting</b>	5/9/2024	Equity discussion.	Renton Hazard Mitigation Planning Group lead
<b>Regional Hazard Mitigation Annex Workshop</b>	7/11/2024	Guidance on development of annexes.	Renton Hazard Mitigation Planning Group lead
<b>Breakout sessions of City of Renton Hazard Mitigation Planning Group</b>	9/17/2024-9/30/2024	Updates to project statuses, generation of 2024 and overall project progress reports.	Select Renton Hazard Mitigation Planning Group members
<b>City of Renton Hazard Mitigation Planning Group meeting</b>	10/3/2024	Review of draft updates, generate new mitigation strategy ideas.	City of Renton Hazard Mitigation Planning Group members
<b>Breakout sessions of City of Renton Hazard Mitigation Planning Group as needed</b>	10/3/2024-12/5/2024	Reference and integrate with other plans, data collection related to floodplain administration questions, assets at risk inventory, update data in plan, generate new or revised strategies.	Select City of Renton Hazard Mitigation Planning Group members
<b>RHMP Steering Committee Meeting</b>	10/24/2024	Rankings, capability assessments, strategy update discussion.	Renton Hazard Mitigation Planning Group lead
<b>RHMP Steering Committee</b>	11/14/2024	Mitigation strategy discussion	Renton Hazard Mitigation Planning Group lead
<b>City of Renton Hazard Mitigation Planning Group Meeting</b>	12/5/2024	Review compiled draft plan, prioritize citywide projects, identify gaps.	City of Renton Hazard Mitigation Planning Group
<b>RHMP Steering Committee</b>	1/16/2025	Final review for city partners, identify gaps.	Renton Hazard Mitigation Planning Group lead and alternate



## Public Outreach

### Public Outreach Events

EVENT	DATE	SUMMARY	ATTENDEES
<b>Special web page and online survey published</b>	12/8/2023	Published a new informational web page on mitigation and the mitigation plan revision. Published a survey to gather resident/business input for the plan revision. Solicited input from the public on hazard mitigation.	Aware: 254 Informed: 83 Engaged: 15 Survey: 14 responses
<b>Published in “This Week In Renton” (TWIR)</b>	12/20/2023	Published the invitation to comment in TWIR	Total sent to: 23,377 Total opens: 10,055 Unique opens: 7,015 Total clicks: 337 Unique clicks: 306
<b>Social media posts about hazard mitigation plan update</b>	1/3/2024	Published an announcement and invitation for input to the plan revision on Facebook.	Facebook: Engagement - 49 Instagram: Engagement -72 X: Engagement - 20
<b>Web page updated with information and draft plan prior to review by King County</b>	2/4/2025	Demonstrate incorporation of comments and feedback from the public.	Page hits were pending at time of submission.



## City of Renton Hazard Mitigation Program

Hazard mitigation strategies were developed through a two-step process. The City of Renton met with an internal planning team, an expansion of the existing Emergency Management Group that meets monthly in the city, 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.

Each department or agency that has submitted a strategy plan will continue to work towards progress on that strategy. This includes advocacy for budget allocations, workload assignments, and grant applications that support accomplishment of those strategies.

### 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 a participant in the 2025 update to the Regional Hazard Mitigation Plan, the City of Renton 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. This will be a breakout session of members of the city's Emergency Management Group that will convene in August, October, or December to conduct this review.

When King County Emergency Management sends federal notices of funding opportunity for the Hazard Mitigation Assistance Grant Program, the city will evaluate the viability of projects eligible for such grants and will submit grant applications if appropriate to align with the priorities of the Hazard Mitigation Plan. This will be a key strategy to implement the plan.

The next plan update is expected to be due in April 2030. The City of Renton will submit a letter of intent by 2028, 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 2025 plan.

### Continued Public Participation

The City of Renton already maintains substantial public outreach capabilities, focusing on personal preparedness and education. Updates on the progress of hazard mitigation plan implementation will be incorporated into public outreach efforts. This will provide Renton 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.

#### King County Overall Plan Goals

The goal of the 2025 King County Regional Hazard Mitigation Plan is to create a framework that reduces the impact and susceptibility of the identified hazards on people, property, and the environment, prioritizing historically underserved communities.



## Hazard Mitigation Authorities, Responsibilities, and Capabilities

### Plans

PLAN TITLE	RESPONSIBLE AGENCY	POINT OF CONTACT	RELATIONSHIP TO HAZARD MITIGATION PLAN
<b>Comprehensive Plan</b>	City of Renton Community and Economic Development Department	Community & Economic Development Administrator; Planning Director	Includes policies applicable to sensitive areas and principles for future development.
<b>Comprehensive Emergency Management Plan</b>	City of Renton Office of Emergency Management	Emergency Management Director	Comprehensive Emergency Management Plans currently include mitigation approaches with roles/responsibilities of city departments and community partners.
<b>Capital Facilities Plan</b>	City of Renton Public Works Department Finance Department Parks and Recreation Department	Parks and Recreation Administrator Finance Administrator Public Works Administrator	Identifies critical facilities and major improvement or construction projects that need to consider hazards/vulnerabilities, and appropriate mitigation measures.
<b>Urban Forest Management Plan</b>	City of Renton Parks and Recreation Department	Urban Forestry and Natural Resources Manager	Details annual tree maintenance and inspection protocols for public safety. Well maintained trees are inherently less hazardous and prone to catastrophic failure. Urban tree canopy cover also mitigates problems from urban heat. Includes a risk tree inspection plan and staff training program. Staff includes ISA Certified Tree Risk Assessors.
<b>Utilities plans</b>	Water Utility System Plan; Long Range Wastewater Management Plan; Surface Water Utility System Plan	Utility Systems Director	Identifies systems and essential services that need to consider hazards/vulnerabilities, and appropriate mitigation measures.



*Programs, Policies, and Processes*

<b>PROGRAM/POLICY</b>	<b>RESPONSIBLE AGENCY</b>	<b>POINT OF CONTACT</b>	<b>RELATIONSHIP TO HAZARD MITIGATION PLAN</b>
<b>Building Codes</b>	City of Renton Community and Economic Development Department	City of Renton Building Official	Building code development should be based on a common understanding of hazards described in this plan.
<b>Emergency Management Program</b>	City of Renton Executive Department/Emergency Management Division	Emergency Management Director	Tracking of disaster impacts, new or changing hazards, public engagement around mitigation.
<b>Critical Areas Ordinance</b>	Community and Economic Development	Community & Economic Development Administrator, Planning Director	Regulate development in sensitive areas.
<b>City of Renton Utility Services</b>	Public Works Department	Public Works Administrator Utility Systems Director Maintenance Services Director Solid Waste Program Manager	Maintenance of working systems should be based on a common understanding of hazards described in this plan.
<b>Fire Code</b>	Renton Regional Fire Authority	Fire Marshal	Fire code development should be based on a common understanding of hazards described in this plan.

*Entities Responsible for Hazard Mitigation*

<b>AGENCY/ORGANIZATION</b>	<b>POINT OF CONTACT</b>	<b>RESPONSIBILITY(S)</b>
<b>Community and Economic Development Department</b>	Community and Economic Development Administrator, Planning Director	Policy and planning input to decrease community vulnerability over time and react to emergencies.
<b>Parks and Recreation Department</b>	Parks and Recreation Administrator	Mitigating damage to and preserving natural resources.
<b>Executive Services Department</b>	Deputy Chief Administrative Officer, Emergency Management Director, Information Technology Director	Planning process oversight, public education and engagement, and hardening of cyber infrastructure.
<b>Police Department</b>	Police Chief, Police Commander - Patrol	Law enforcement, including mitigation and response to civil disturbances and acts of terrorism.
<b>Public Works Department</b>	Public Works Administrator	Critical infrastructure mitigation (roads, bridges, utilities, etc.), floodplain management, mitigating damage to city facilities, hazardous materials mitigation, emergency response and recovery.
<b>Renton Regional Fire Authority</b>	Fire Chief	Wildfire mitigation, public education and engagement, fire code development and enforcement, hazardous materials mitigation, emergency response and recovery.



## National Flood Insurance Program

The City of Renton is a member of and actively participates in the National Flood Insurance Program, which makes flood insurance available to Renton property owners. The city oversees compliance with the National Flood Insurance Program requirements for new construction and provides information to property owners in Special Flood Hazard Areas regarding flood insurance requirements.

### National Flood Insurance Program Compliance

<b>What department is responsible for floodplain management in your community?</b>	Shared responsibility and partnership between the Community and Economic Development Department and the Public Works Department.
<b>Who is your community's floodplain administrator? (title/position)</b>	Community and Economic Development Department Administrator.
<b>What is the date of adoption of your flood damage prevention ordinance?</b>	May 8, 1981 (Ordinance 3537), last update on July 5, 2015 Ord. 5757.
<b>When was the most recent Community Assistance Visit or Community Assistance Contact?</b>	June 17, 2019, Matt Gerlach, Regional NFIP Coordinator and Dave Radabaugh, Washington State Department of Ecology Shorelands and Environmental Assistance Program
<b>Does your community have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are?</b>	No outstanding NFIP compliance violations.
<b>Do your flood hazard maps adequately address the flood risk within your community? If so, please state why.</b>	Once the new King County DFIRM follows the letter of final determination from FEMA, the flood hazard maps will adequately address flood risks in Renton except for in the portion of the Green River floodplain in Renton. The Green River floodplain is identified as a seclusion area in the DFIRM that still utilizes the old FEMA Flood Insurance Rate Maps until an updated Flood Insurance Study and map is completed.
<b>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?</b>	Yes, overview of NFIP current requirements for new and existing employees. Training on the information needed and how to complete the updated Building Elevation Certificate and training needed for becoming a certified floodplain manager.
<b>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?</b>	Yes. CRS Classification 5. The City of Renton is seeking to maintain this rating and possibly improve our rating as part of the next CRS verification review.
<b>How many Severe Repetitive Loss (SRL) and Repetitive Loss (RL) properties are located in your jurisdiction?</b>	SRL: 0 RL: 0
<b>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?</b>	n/a

## Hazard Mitigation Strategies

The city has made notable progress in mitigation projects over the past five years. Major accomplishments include completion of a major dredging project on the Cedar River to prevent flooding; funding of and participation in the 2015-2016 LiDAR study to better identify landslide-prone areas; securing of funding for the design, permitting and construction of improvements to the levees and floodwalls needed for certification; obtaining a grant to reduce flood hazards associated with Madsen Creek; and seismic retrofitting and repainting of three downtown area bridges funded by three separate grants.

In the reformatting of this plan, several strategies have been reevaluated, and some have been deprecated. Others have been converted into the new format of strategies. Those changes have been indicated in the table below.

### 2020 Hazard Mitigation Strategy Status

STRATEGY	DESCRIPTION	PRIORITY	STATUS
<b>Airport Earthquake and Seismic Mitigation</b>	Recent survey has identified the Seaplane Ramp is settling and developed significant cracking due to a developed void underneath. The Airport needs to rebuild/reinforce the ramp. Multiple conduits and water mains are routed under the runway. Reinforcing this infrastructure to resist seismic activity would prevent loss of air traffic control communication capabilities and hydraulic mining under the runway surface.	High	From 2020-2024 the city submitted multiple grant pre-applications, attempting to secure funding for this seismic mitigation project. As this strategy has been unsuccessful, the city is now pursuing funding to replace the tower. Three applications have been made to different funding sources but as yet have not been awarded. This project scope is being rewritten to reflect this different approach.
<b>Cedar River Section 205 Flood Hazard Reduction Project – Operation and Maintenance</b>	The objective of this program is to operate and maintain the levees in accordance with the Operation and Maintenance Manual (O&MM) and maintain a minimally acceptable rating following each United States Army Corps of Engineers (USACE_ levee inspection.	Medium	The city continued to operate and maintain the Cedar River Section 205 levee in accordance with the operation manual and the sponsorship agreement with the US Army Corps of Engineers. The levee has continued to receive a minimally acceptable rating and continued to pass every routine and periodic inspection conducted by the Corps and thus remains eligible for federal sponsorship and emergency assistance under public law 84-99.
<b>Cedar River Gravel Removal Project</b>	The objective of this project is to periodically (every 12-18 years) dredge the bed of the Cedar River to reduce the risk of flooding and protect adjacent properties.	Medium	Following the 2016 gravel removal project, the city entered a 10-year post construction mitigation monitoring and reporting phase that will extend to 2027. In addition to the mitigation requirements, the city continues to monitor sediment deposition and is anticipated to initiate design and permitting for the next gravel removal project in 2026.



STRATEGY	DESCRIPTION	PRIORITY	STATUS
<b>Cedar River Section 205 Levee Certification Project</b>	Several sections of the levees and floodwalls need improvements in order to provide sufficient freeboard or increase structural stability to meet current levee certification standards. The City of Renton is permitting, designing, and constructing these improvements.	Medium	The city completed design of the levee improvements aimed at achieving FEMA accreditation of the Cedar River Section 205 Levee as providing protection from the 100-year flood. Construction is planned for 2026, pending completion of section 408 review with the US Army Corps of Engineers and Endangered Species Act compliance with FEMA.
<b>Coal Mine Study Mitigation Strategy</b>	Update and verify historic maps of coal mine features and overlay these with vulnerable infrastructure to assist in identifying potential hazards. Identify methods to stabilize areas where critical infrastructure is at risk from subsidence.	Low	This project, originally anticipated to begin in 2020, was deferred due to shifting priorities and personnel changes subsequent to the onset of the COVID pandemic. Staff and resource allocation had not yet been identified to begin work on this mitigation strategy.
<b>Funding/ Partnership Mitigation Strategy</b>	Reach out to community partners to determine shared concerns and priorities around hazard mitigation, and negotiate cost-share agreements for shared projects, or allocate matching funds from city budget to meet grant requirements.	Low	The city has continued to vie for project funds through the Hazard Mitigation/BRIC grant programs. City representatives have submitted pre-applications, but Renton projects have not yet been funded.
<b>Lower Cedar River Flood Risk Reduction Feasibility Study</b>	This study would explore measures to prevent localized flooding and reduce the flooding risks during extreme events and the feasibility of achieving such a level of protection.	Medium	The city completed an existing conditions assessment and is exploring scenarios reflecting climate change that would be analyzed under future conditions. Alternative measures to reduce flood risk during extreme events and the feasibility of achieving a higher level of protection than the 100-year flood will be assessed.
<b>Maintenance Facility Standby Emergency Power</b>	The maintenance facility currently only has back-up power generation that allow for partial operation, which impacts the city’s ability to respond to hazards that result in power outages. The increased back-up power generation will provide full power to the facility for hazard emergency response without limitation due to only partial power at the City of Renton Maintenance Shop Facility.	High	A standby emergency power generator was installed at the maintenance facility in 2021. Additional maintenance facility electrical panel switch modifications are planned to increase the amount of power the maintenance facility can accept for the standby power generator.





STRATEGY	DESCRIPTION	PRIORITY	STATUS
<b>Regional Planning Mitigation Strategy</b>	This plan will identify opportunities to support countywide initiatives identified in the overall King County Regional Hazard Mitigation Plan and actively participate in the plan maintenance strategy identified.	Medium	The city is actively engaged in contributing to countywide initiatives, with representatives serving on the regional steering committee for the county’s five-year major plan revision during 2024-2025. This commitment is reflected in the Emergency Management Strategic Plan for the city and will be carried into the next plan review cycle.
<b>Utility Pumping Facilities Back-Up Power</b>	The city will evaluate emergency standby power options, including installing on-site generators and increasing fuel storage, to lessen the impact of future power outages at utility pumping facilities.	High	A new standby emergency power generator was installed at the West Hill pump station in 2024. Proposed emergency generator to be installed at South Talbot pump station in 2025-2026.
<b>Volcanic Ash &amp; Wildfire Smoke Mitigation Strategy</b>	May 18, the anniversary of Mt. St. Helen’s eruption, will serve as an annual ash and wildfire smoke awareness campaign launch. It will include social media and public communications regarding education on the risk to Renton residents; appropriate actions if the hazard occurs; and ways to lessen the impact of poor air quality on human health, as well as transportation and general visibility.	Low	This strategy has been advanced through extensive public education efforts regarding wildfire smoke risks. Messaging was developed by Public Health – Seattle and King County and Puget Sound Clean Air Agency and amplified through city channels. Additionally, the city amended sheltering operational plans to include thresholds and protocols for providing shelter options to the general public based on air quality due to wildfire smoke to mitigate the health hazards associated with poor air quality.
<b>Water System Risk Assessment</b>	The risk assessment will 1) inventory at-risk water infrastructure that contribute to critical functionality of the water system; 2) evaluate the risk and known vulnerabilities to significant threats and hazards; and 3) implement prevention, protection, and mitigation activities for identified threats and hazards. The Water Utility will develop partnerships with local emergency response and planning groups to foster hazard mitigation activities.	Medium	The city has completed the Water System Risk & Resiliency Assessment and Emergency Response Plan update in December 2020.



STRATEGY	DESCRIPTION	PRIORITY	STATUS
<b>Water Utility Seismic Resilience</b>	The Water Utility will apply to participate in Pacific Northwest Seismic Network’s new pilot program that monitors earthquake activity using a network of sensors distributed across the region.	High	The city has completed the Water Utility Seismic Resilience Plan as part of the Water System Risk & Resiliency Assessment and Emergency Response Plan update in December 2020. The ShakeAlert project was abandoned after a failed grant application, and instead there are plans to install seismic valves on reservoir outlet pipes.

**2025 Hazard Mitigation Strategies**

The following strategies emerged as the best mitigation focus for the City of Renton over the next five years, with some projects, such as the Cedar River Gravel Removal Project, in a monitoring status to determine longer range mitigation needs 10 years out or more.



### 2025 Hazard Mitigation Strategies

STRATEGY	LEAD AGENCY/POC	TIMELINE	PRIORITY
<b>Airport Seismic Mitigation</b>	Renton Public Works/Airport Manager	2025–2027	High
<b>Cedar River Section 205 Flood Hazard Reduction Project – Operation and Maintenance</b>	Renton Public Works/Surface Water Engineering Manager	Ongoing	Medium
<b>Cedar River Gravel Removal Project</b>	Renton Public Works/Surface Water Engineering Manager	2031–2037	Medium
<b>Cedar River Section 205 Levee Certification Project</b>	Renton Public Works/Surface Water Engineering Manager	2025	Medium
<b>Civil Disturbance Mitigation</b>	Renton Police/ Police Commander - Patrol	Ongoing	Low
<b>Coal Mine Study Mitigation Strategy</b>	Renton Community and Economic Development/Planning Director and Building Plan Reviewer	2025–2030	Low
<b>Cyber Incident Disaster Recovery Site</b>	Renton Information Technology/Information Technology Director	2025	High
<b>Funding/Partnership Mitigation Strategy</b>	Renton Emergency Management/Emergency Management Director	2025 and ongoing	Low
<b>Hazardous Materials Public Education</b>	Renton Public Works Solid Waste Program Manager	2026 and ongoing	Low
<b>Lower Cedar River Flood Risk Reduction Feasibility Study</b>	Renton Public Works Surface Water Engineering Manager	2025	Medium
<b>Maintenance Facility Standby Emergency Power</b>	Public Works Department Facilities Director	2025	High
<b>Public Health Emergency Mitigation</b>	Renton Emergency Management/Emergency Management Director	2025 and ongoing	Low
<b>Regional Planning Mitigation Strategy</b>	Renton Emergency Management/Emergency Management Director	Ongoing	Medium
<b>Terrorism Mitigation</b>	Renton Police/Commander – Administrative Services	Ongoing	Low
<b>Tsunami/Seiche</b>	Renton Community and Economic Development/Planning Director	2025-2030	Low
<b>Utility Pumping Facilities Back-Up Power</b>	Renton Public Works/Utility Systems Director	2026	High
<b>Volcanic Ash &amp; Wildfire Smoke Mitigation Strategy</b>	Renton Emergency Management/Emergency Management Director	2025 and ongoing	Low
<b>Water System Risk Assessment</b>	Renton Public Works/Water Utility Engineering Manager and Water Maintenance Manager	2030–2031	Medium
<b>Water Utility Seismic Resilience</b>	Renton Public Works/Water Utility Engineering Manager and Water Maintenance Manager	2026	High



## Airport Seismic Mitigation

<b>Lead POC</b> <ul style="list-style-type: none"> <li>Assistant Airport Manager</li> <li>Airport Manager</li> <li>Airport Engineer</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Federal Aviation Administration (FAA)</li> <li>Federal Emergency Management Administration</li> </ul>	<b>Hazards Mitigated</b> Earthquake, Landslide/ Sinkhole	<b>Funding Sources/            Estimated Costs</b> FEMA grants; FAA; AIP; local budget CIP; Small Airports Program. \$1.8M Retrofit cost; \$650,000 city cost.
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**Strategy Vision/Objective**  
 Mitigate seismic impacts to the air traffic control tower in future events and repair current damage from the past 1994 event(s). The tower is not currently rated for either Collapse Prevention, Life Safety or Immediate Occupancy in case of a seismic event. Generally, an Immediate Occupancy performance level is assigned to a building that is deemed an essential facility and is required to be functional shortly after the design-level earthquake. The 2012 International Building Code (IBC) classifies aviation control towers and air traffic control centers as essential facilities.

**Mitigation Strategy**  
 The Renton Municipal Airport’s air traffic control tower, built in the 1960s, does not meet current structural code. Recent engineering studies identified the following deficiencies: excessive horizontal drift ratios, inadequate beam connections to the weak axes of columns, inadequate panel zone shear capacities, lack of beam bottom flange bracing, impacts of site liquefaction, and lack of connection between the timber piles and the concrete pile caps to resist uplift forces due to an earthquake, which is of particular concern for a building with the height-to-base width aspect ratio of a control tower. To remedy the tower to an ASCE 41-13, Retrofit Standard BSE-2E, Tier III, Risk III, “Limited Safety Structural Performance, Non-Structural Performance not considered” (Life Safety) rating, an exoskeleton and bracing will be fitted. As per the last official notice Wiley Post Seaplane Base is considered a strategic asset according to the Puget Sound Transportations Recovery Annex. Recent survey has identified the Seaplane Ramp is settling and developed significant cracking due to a developed void underneath, the Airport needs to rebuild/reinforce ramp. Multiple conduits and water mains are routed under the runway. Reinforcing this infrastructure to resist seismic activity would prevent loss of air traffic control communication capabilities and hydraulic mining under the runway surface. This will ensure the safe operation of the Air Traffic Control Tower and Seaplane Base and the uninterrupted transportation of goods/supplies and protect the city’s economic development.

<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Apply for FEMA PDM funding.</li> <li>Apply for FAA Funding, Master Plan.</li> <li>Contingent on supplemental funding approval, complete retrofit of Tower Mitigation Project.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Evaluate remaining life and determine appropriateness of complete replacement.</li> <li>Conduct siting study for new tower.</li> <li>Relocate/fix Seaplane Base.</li> <li>Reinforce communication conduit.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Replace air traffic control tower with new structure if repair is not feasible.</li> <li>Maintain air traffic control tower to a Critical Infrastructure Standard, Non-Structural to be considered.</li> </ul>
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**Implementation Plan/Actions**

- Combine FEMA grants (PDM) and Airport funds to the Airport Tower Mitigation Project.
- Plan for future siting and building of new tower.

**Performance Measures**

- Successfully eliminate the structural seismic concern at the airport by retrofitting and/or building a new facility.



## Cedar River Section 205 Flood Hazard Reduction Project – Operation and Maintenance

<b>Lead POC</b> <ul style="list-style-type: none"> <li>• Surface Water Engineering Manager</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>• King County Flood Alerts</li> <li>• Boeing</li> </ul>	<b>Hazards Mitigated</b> Dam Failure, Flood	<b>Funding Sources/ Estimated Costs</b> Local budget Surface Water Capital Improvement Program; local budget Surface Water Maintenance Fund; federal disaster funding; US Army Corps of Engineers; King County Flood Control District. Cost is dependent on specific maintenance needs.
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**Strategy Vision/Objective**  
 Following the construction of the Section 205 levees along the Cedar River from Williams Ave N to Lake Washington, in cooperation with the US Army Corps of Engineers (USACE), obligations for operation and maintenance were transferred to the City of Renton in accordance with the Operation and Maintenance Manual (O&MM). Additionally, USACE conducts routine annual and 5-year periodic inspections of the levees in order to determine maintenance needs and rate their acceptability and eligibility for flood response assistance. The objective of this program is to operate and maintain the levees in accordance with the O&MM and maintain a minimally acceptable rating following each USACE levee inspection. This would reduce the risk of levee failure, maintain federal sponsorship of the Cedar River Section 205 levees and eligibility for flood response assistance under PL84-99, and maintain the level of protection of the Cedar River Section 205 levees to, at minimum, the 100-year flow.

**Mitigation Strategy**

- Maintain close cooperation with USACE and Boeing.
- Adhere to the inspections, flood stage procedures, bridge operation, closure operation, and maintenance requirements of the OM&M.
- Secure funding for routine repair projects.

<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>• Same as long-term objectives.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>• Same as long-term objectives.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>• Prevent levee failure due to lack of maintenance or improper operation.</li> <li>• Maintain eligibility for federal flood response assistance.</li> </ul>
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**Implementation Plan/Actions**

- Monitor flows on the Cedar River during major regional storm events.
- Initiate levee repair or vegetation management projects in a timely manner following the determination of a deficiency.
- Conduct levee inspections with USACE and as required by the O&MM.

**Performance Measures**

- Obtain a minimally acceptable rating from USACE on an annual basis.
- Operate and maintain the Section 205 Levees in accordance with the O&MM.



## Cedar River Gravel Removal Project

<b>Lead POC</b> <ul style="list-style-type: none"> <li>Surface Water Engineering Manager</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>King County Flood Control Zone District</li> <li>Boeing</li> </ul>	<b>Hazards Mitigated</b> Flood	<b>Funding Sources/ Estimated Costs</b> Local budget Surface Water Capital Improvement Program; King County Flood Control Zone District Capital Improvement Program. \$ 10.5 Million
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### Strategy Vision/Objective

The USACE Section 205 project on the lower 1.25 miles of Cedar River requires periodic maintenance dredging due to continuous sediment accumulation that gradually reduces the conveyance capacity of the river, and level of flood protection offered by USACE Section 205 levees from Williams Ave S to Lake Washington. The objective of this project is to periodically (every 12-18 years) dredge the bed of the Cedar River to reduce the risk of flooding and protect adjacent properties. The periodic maintenance dredging is required as part of the agreement with USACE for the initial construction of the Cedar River Section 205 Flood Hazard Reduction Project levees and floodwalls.

### Mitigation Strategy

The City of Renton monitors sediment accumulation on a yearly basis by performing cross section surveys along the lower two miles of the river. When the riverbed reaches or significantly approaches the “warning elevation,” defined as 1.5 ft below the “maximum bed elevation,” the city initiates the design and permitting efforts of a maintenance dredging project. The “maximum bed elevation” is the riverbed elevation above which the levees in Section 205 can no longer provide two feet of freeboard during the 100-year flood. Typically, a maintenance dredging project also includes bank stabilization and outfall repairs needed to maintain the structural stability of the levees.

<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Keep monitoring sediment accumulation.</li> <li>Begin planning, permitting and design of the next gravel removal project.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Keep monitoring sediment accumulation.</li> <li>Secure funding for the design, permitting, construction and mitigation requirements of the next gravel removal Project.</li> <li>If required, initiate construction of the next gravel removal project.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Successfully dredge the Cedar River and maintain the flood protection capacity of the USACE Section 205 levees.</li> </ul>
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### Implementation Plan/Actions

- Annual survey of sediment accumulation.
- Maintenance dredging of the Cedar River every 12-18 years.

### Performance Measures

- Successful project execution is achieved when the Cedar River gets dredged before reaching the “maximum bed elevation” in compliance with all permitting and mitigation requirements.





## Cedar River Section 205 Levee Certification Project

<b>Lead POC</b> <ul style="list-style-type: none"> <li>• Surface Water Engineering Manager</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>• USACE – Seattle District</li> <li>• King County Flood Control Zone District</li> <li>• Boeing</li> <li>• FEMA</li> </ul>	<b>Hazards Mitigated</b> Dam Failure, Flood	<b>Funding Sources/ Estimated Costs</b> Local budget Surface Water Capital Improvement Program; King County Flood Control Zone District Capital Improvement Program. \$ 5,000,000
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**Strategy Vision/Objective**  
 The Cedar River USACE Section 205 levees are currently provisionally accredited levees, with final accreditation contingent upon design and construction of levee improvements that were determined to be needed in order to meet current FEMA accreditation standards and provide sufficient freeboard during the 100-year flood. If left uncertified, the levees would not be mapped by FEMA and adjacent properties would be regulated as if they were in the floodplain. This mitigation strategy will work to protect Renton Municipal Airport, the Boeing 737 production facility, city park, and adjacent commercial/residential properties from flooding and being subjected to floodplain development regulations and flood insurance requirements.

**Mitigation Strategy**  
 Several sections of the levees and floodwalls need improvements in order to provide sufficient freeboard or increase structural stability to meet current levee certification standards. The City of Renton is permitting, designing and constructing these improvements.

<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>• Permit and design levee improvements.</li> <li>• Submit a new Conditional Letter of Map Revision (CLOMR) input to FEMA showing final design drawings and demonstrating Endangered Species Act Compliance.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>• Construct levee improvements.</li> <li>• Submit a Letter of Map Revision (LOMR) input to FEMA with the final project report and record drawing and obtain accreditation.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>• Maintain levee accreditation with FEMA.</li> <li>• Initiate a re-accreditation project once the certification issued by the consultant expires.</li> </ul>
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**Implementation Plan/Actions**

- Use a phased approach (assessment, permitting, design, construction, final accreditation).
- Coordinate with USACE on Section 408 review and other agencies on required permits.
- Use an effective project management approach and closely monitor schedule.

**Performance Measures**

- Several milestones during the design of the levee improvements will serve as performance checkpoints.
- Successful accreditation relies on adequate project management and control, clear communication and collaboration with the permitting agencies, and successful construction of the improvements.



<b>Civil Disturbance Mitigation</b>			
<b>Lead POC</b> <ul style="list-style-type: none"> <li>Renton Police Commander – Patrol</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Key community partners determined situationally relative to incidents.</li> </ul>	<b>Hazards Mitigated</b> Civil Disturbance	<b>Funding Sources/ Estimated Costs</b> Staff time. \$0
<b>Strategy Vision/Objective</b> To foster a united and resilient community in Renton where trust, understanding, and collaborative relationships between residents, local government, and law enforcement prevent and mitigate civil disturbances. To achieve this strategy, relationships between the community and the Renton Police Department will be strengthened through dialogue, public outreach, and collaborative partnerships.			
<b>Mitigation Strategy</b> <ul style="list-style-type: none"> <li>Build and strengthen community partnerships to identify and address potential sources of tension or dissatisfaction.</li> <li>In partnership with local organizations and community groups, address root causes of civil disturbances through assessments that identify systemic issues such as economic disparities, social inequalities, and or perceived lack of representation.</li> <li>Enhance communication and outreach through disseminated public outreach videos that highlight the capabilities of local law enforcement and showcase the shared values and goals of the community.</li> </ul>			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Establish and maintain the community partnerships.</li> <li>Complete an assessment of systemic issues contributing to civil disturbances and begin addressing these areas.</li> <li>Launch community outreach videos.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Develop and sustain programs that continue to address systemic issues.</li> <li>Expand community partnerships and stakeholders to support long-term engagement.</li> <li>Continue community outreach opportunities to reach more groups.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Foster a sustained culture of trust and collaboration reducing the incidences of civil disturbances in the city.</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Host a community engagement meeting with local organizations and community groups to outline goals and priorities and listen to concerns of the citizens.</li> <li>Conduct a community wide survey to identify concerns, perceptions, and receive suggestions regarding local law enforcement and local government.</li> <li>Develop a communication plan for public outreach videos and social media campaigns.</li> <li>Continue fostering transparency by hosting regular meetings and listening sessions with the community.</li> <li>Roll out initiatives to address the systemic issues in collaboration with community partners.</li> <li>Monitor and evaluate the effectiveness of the mitigation efforts, adjusting strategies as needed.</li> <li>Continue to expand outreach efforts and strengthen partnerships to ensure ongoing trust and engagement.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Growth in attendance for community outreach events, meetings, and online engagement.</li> <li>Annual surveys to the community indicating increased satisfaction with law enforcement initiatives.</li> </ul>			

<b>Coal Mine Study Mitigation Strategy</b>			
<b>Lead POC</b> <ul style="list-style-type: none"> <li>Planning Director</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>US Office of Surface Mines</li> <li>Olympic Pipeline</li> <li>Bonneville Power Administration</li> <li>Seattle City Light</li> <li>Puget Sound Energy</li> <li>Seattle Public Utilities</li> </ul>	<b>Hazards Mitigated</b> Earthquakes, Landslides/Sinkholes	<b>Funding Sources/            Estimated Costs</b> FEMA; Match in staff time through local budget. Total cost \$100,000.
<b>Strategy Vision/Objective</b> Update and verify historic maps of coal mine features, including mine shafts and coal mine seams, and overlay these with vulnerable infrastructure including regional fuel pipelines, electrical transmission corridors, regional water pipelines, sensitive receptors (schools, hospitals, etc.), and roadways to assist in identifying potential hazards. Identify methods to stabilize areas where critical infrastructure is at risk from subsidence.			
<b>Mitigation Strategy</b> <ul style="list-style-type: none"> <li>Identify historic coalmine features that potentially conflict with critical infrastructure and sensitive receptors.</li> <li>Identify mitigation measures to stabilize areas with high risk for subsidence.</li> <li>Avoid developing new critical infrastructure and/or sensitive receptors in areas with identified subsidence risk from historic coal mining activities.</li> </ul>			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Review coal mine hazard regulations for Best Available Science compliance as part of 2024/2025 Critical Areas Ordinance update</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Fund study to verify location and depth of abandoned and closed historic coalmine features and identify where these features may threaten critical infrastructure.</li> <li>Identify mitigation to stabilize known areas of conflict.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Coal mine maps are integrated and maintained with other hazard maps to gain a better understanding of hazard complexity to inform future development and emergency response and mitigation decisions.</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Fund study no earlier than 2026 to verify locations and depths of abandoned and closed historic coalmines and coal mining features. Overlay with critical infrastructure and develop mitigation to prevent subsidence and threat to critical infrastructure and vulnerable sensitive receptors.</li> <li>Convene stakeholder meetings no earlier than late 2026 to share study findings and develop joint strategies to develop mitigation measures.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Successfully identify potential hazards to determine current hazard risk and strategies to avoid impacts of subsidence on critical infrastructure such as pipelines and roads, and vulnerable sensitive receptors such as schools and hospitals.</li> </ul>			

## Cyber Incident Disaster Recovery Site

<b>Lead POC</b> <ul style="list-style-type: none"> <li>IT Infrastructure and Security Manager</li> <li>IT Director</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Cybersecurity and Infrastructure Security Agency, Supervisory Cybersecurity Advisor</li> </ul>	<b>Hazards Mitigated</b> Cyber Incident	<b>Funding Sources/ Estimated Costs</b> Local budget approved by council and provided as part of the Capital Improvement Plan (CIP). \$1,400,000.
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**Strategy Vision/Objective**  
To provide for systems and/or data recovery in the event of detrimental infrastructure failure or cyber incident; also providing for continuity of business in the event of the primary site becoming physically or virtually inaccessible.

**Mitigation Strategy**  
The city of Renton has over 150 virtual servers it relies on to provide critical services and applications. In the event of a cyber incident that may compromise primary systems, we require a robust backup solution that can safely store and protect immutable copies of our data for restoration after remediation. We also require adequate hardware infrastructure to support restoration in a timely manner along with failover capability if necessary. To this end, we have invested in new server hyperconverged infrastructure (HCI) in both our primary and secondary data center locations, along with an industry-leading backup solution.

In the event of a cyber incident, we will reference and follow our Incident Response Plan to remediate and recover. If the secondary site is needed as a failover, necessary configuration changes will be made (IP, DNS, etc.) and it will be brought online to allow for continuity of operation until the primary site is again available.

<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Purchase, install, configure, test and go-live with new HCI infrastructure and backup solution.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Forklift secondary site to a location geographically separated from our primary site to avoid losing both in the event of natural disaster or loss of physical access.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Regularly monitor, test and maintain backup and failover capabilities.</li> </ul>
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**Implementation Plan/Actions**

- Have 3<sup>rd</sup> party perform disaster recovery assessment and suggest plan of action.
- Based on recommendations, gather quotes for necessary resources from partner value-added resellers (VARs).
- Submit CIP request to Finance and City Council for approval.
- Acquire funding; procure, install, configure and test infrastructure in backup/disaster recovery site.
- Procure, install, configure and test infrastructure in primary site.
- Fine-tune backup service level agreements and business continuity/failover configurations.
- Fully test solution.
- Relocate secondary (disaster recovery and business continuity) site to an acceptably distant geographical location.
- Test, verify, maintain.



### Funding/Partnership Mitigation Strategy

<b>Lead POC</b> <ul style="list-style-type: none"> <li>Emergency Management Director</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Washington State Military Department Emergency Management Division Public Accessistan Program Coordinator</li> <li>FEMA Region 10 Senior Stakeholder Relations Specialist</li> </ul>	<b>Hazards Mitigated</b> All	<b>Funding Sources/ Estimated Costs</b> Staff time. \$0
<b>Strategy Vision/Objective</b> Leverage community partnerships (public and private) and grant funding opportunities to address mitigation priorities within the city.			
<b>Mitigation Strategy</b> <ul style="list-style-type: none"> <li>Reach out to community partners to determine shared concerns and priorities around hazard mitigation.</li> <li>Negotiate cost-share agreements for shared projects or allocate matching funds from city budget to meet grant requirements.</li> </ul>			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Identify new partners for mitigation projects where appropriate.</li> <li>Submit grant applications when opportunities arise.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Complete one project with partner participation and/or grant funding.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Continue to cultivate a community culture that participates in mitigation investments.</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Introduce mitigation concepts in meetings with external stakeholders.</li> <li>Maintain grant documentation files and tracking system for applications.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Submit one grant application every two years.</li> <li>Complete one project with partner participation and/or grant funding.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Restoration capabilities in line with established SLA's.</li> <li>Adequate performance in failover state to second site.</li> </ul>			



<b>Hazardous Materials Public Education</b>			
<b>Lead Points of Contact</b> <ul style="list-style-type: none"> <li>Solid Waste Program Manager</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>King County Hazardous Waste Management Program, Educator Consultant III</li> </ul>	<b>Hazards Mitigated</b> Hazardous Materials	<b>Funding Sources/ Estimated Costs</b> King County Hazardous Waste Management Program grant. \$25,000
<b>Strategy Vision/Objective</b> Increase the knowledge of Renton residents about potential chemical exposure risks from common household products and provide them with alternative strategies to help reduce their exposure.			
<b>Mitigation Strategy</b> Expand the “Safer Cleaning” pilot program to educate all residents in mid-to-large sized multifamily properties about safer cleaning product choices and strategies for alternative cleaning methods.			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Host at least six in-person workshops or tabling events on safer cleaning.</li> <li>Build on previous and current customer engagement to tailor the workshops and tabling events to resident needs.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Program is institutionalized. A maintenance strategy keeps it fresh and relevant to target audiences.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Reduce resident exposure to toxic cleaning materials.</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>In 2025, continue evaluating outcomes of “Safer Cleaning” pilot program.</li> <li>In 2026, adjust program based on pilot analysis recommendations.</li> <li>Expand offerings to include more in-person on-site workshops at multifamily properties and educational tabling at events such as the city’s farmer’s market.</li> <li>Amplify messaging about safer cleaning via social media and monitor response in 2026 and beyond.</li> <li>Periodically evaluate program effectiveness.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Hold three workshops in 2026, and then annually.</li> <li>Participate in two tabling events in 2026, and then annually.</li> </ul>			





## Lower Cedar River Flood Risk Reduction Feasibility Study

<b>Lead POC</b> <ul style="list-style-type: none"> <li>Surface Water Engineering Manager</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>King County Flood Control Zone District</li> <li>King County</li> <li>Boeing</li> </ul>	<b>Hazards Mitigated</b> Flood	<b>Funding Sources/ Estimated Costs</b> Local budget Surface Water Capital Improvement Program; King County Flood Control Zone District Capital Improvement Program. \$ 500,000
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**Strategy Vision/Objective**  
Identify the most feasible level of flood protection along the lower 2 miles of the Cedar River and specific improvement projects to implement in order to reach that level of protection. Reduce additional flood risk beyond the 100-year level of flood protection. Identify future flood improvement projects along the lower two miles of the Cedar River.

**Mitigation Strategy**  
The Lower Cedar River traverses through a major commercial, industrial, recreational and residential area in the City of Renton, vital to the local economy. The USACE Section 205 project, from Williams Ave N to Lake Washington is protected from the 100-year flood by levees. However, overtopping could occur at locations upstream of this reach and result in minor localized flooding of roadways. This study would explore measures to prevent such localized flooding. Also, during floods larger than the 200-year flood event, extensive overtopping of the left and right banks upstream of Logan Ave could occur. This study would explore measures to reduce the flooding risks during such extreme events and the feasibility of achieving such a level of protection.

<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Identify desired level of flood protection requirement.</li> <li>Identify required flood improvement projects.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Plan and identify funding needs for proposed improvement projects.</li> <li>Design and implement smaller flood improvement projects.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Design and implement larger flood improvement projects.</li> <li>Improve overall flood protection along lower Cedar River.</li> </ul>
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**Implementation Plan/Actions**

- Seek grants from the King County Flood Control District, FEMA, or Floodplains by Design to fund the design and construction projects identified for improvement.
  - Build on existing partnerships with environmental and community organizations to ensure that design meets the needs of all stakeholders.
  - Assess design to ensure that it meets estimated increased flows due to climate change.
- Construction of flood risk reduction improvements.

**Performance Measures**

- Successfully identify projects to reduce the risk of flooding, improve resiliency to climate change and extreme weather events, protect private property, and preserve key economic assets.



<b>Maintenance Facility Standby Emergency Power</b>			
<b>Lead POC</b> <ul style="list-style-type: none"> <li>Facilities Director</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>N/A</li> </ul>	<b>Hazards Mitigated</b> Dam Failure, Earthquake, Flood, Landslide, Severe Weather, Volcano, Wildfire	<b>Funding Sources/ Estimated Costs</b> Local budget; FEMA HMGP. \$500,000;
<b>Strategy Vision/Objective</b> Provide back-up emergency power generation at the City of Renton Maintenance Shop to allow for full operation of the facility, which is the city's Public Works Department Operations Center for responding to any significant hazard that results in an emergency. The facility is used by the Street Maintenance, Surface Water Utility Maintenance, Wastewater Maintenance, Fleet Services and Water Utility Maintenance sections. All city departments rely on the facility for fueling and maintenance/repair of city vehicles. All public works equipment that may be needed during an emergency is stored at the facility and city maintenance personnel are dispatched from the facility when responding to hazards. The Supervisory Control and Data Acquisition (SCADA) system controls for the Water Utility operation of the city's water supply wells, reservoirs, pump stations and treatment facilities are located at the facility along with the SCADA system for Wastewater Utility and Surface Water Utility lift stations and pump stations. Standby emergency power will ensure full operation of facility during power outages to allow response to hazards.			
<b>Mitigation Strategy</b> The maintenance facility currently only has back-up power generation that allow for partial operation, which impacts the city's ability to respond to hazards that result in power outages. The increased back-up power generation will provide full power to the facility for hazard emergency response without a limitation due to only partial power at the City of Renton Maintenance Shop.			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Secure funding for design</li> <li>Hire consultant for design</li> <li>Start design and permitting</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Secure funding for construction</li> <li>Complete final design, construction plans, specifications and permitting</li> <li>Complete construction</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Maintain city operations at the facility during power outages caused any hazard event for response to the event.</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Secure funding from possible funding sources, complete consultant selection process for design and execute design contract.</li> <li>Complete design and permitting and secure funding for construction.</li> <li>Advertise for bids and award construction contract and complete construction.</li> <li>Implement maintenance of the back-up power generator and test periodically.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Back-up power generation is installed at the City of Renton Maintenance Shop facility to allow full operation at the facility during a hazard that results in a power outage.</li> </ul>			



<b>Public Health Emergency Mitigation</b>			
<b>Lead POC</b> <ul style="list-style-type: none"> <li>Emergency Management Director</li> <li>Communications and Engagement Director</li> <li>Risk Manager</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Public Health – Seattle &amp; King County</li> <li>Washington State Department of Health</li> </ul>	<b>Hazards Mitigated</b> Public Health Emergency	<b>Funding Sources/ Estimated Costs</b> Staff time. \$0
<b>Strategy Vision/Objective</b> Working in partnership with public health, contribute to protecting the public health, and maintaining a safe and healthy community environment for our residents, businesses, and visitors.			
<b>Mitigation Strategy</b> Monitor urgent messages from public health at the county and state level. Amplify messages on social media and the city web site in accordance with the City of Renton Crisis Communications Plan and Responses. Amplify public health messages to city employees in accordance with risk management policies and practices. Modify the Emergency Operations Center (EOC) Duty Officer Manual to include public health emergency procedures in alignment with public health protocols and the crisis communications plan. By amplifying public health messaging, officials are speaking with one voice, increasing public confidence and compliance to mitigate the health issues that can be affected by human behavior. Employees are better protected in a public health emergency, which preserves continuity of government and the provision of essential services to the community.			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Revise the EOC Duty Officer Manual.</li> <li>Review the crisis communications plan’s public health emergency section annually.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Review the EOC Duty Officer Manual’s public health emergency section annually.</li> <li>Review the crisis communications plan’s public health emergency section annually.</li> <li>Review risk management policies for currency.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Maintain accurate information and consistency in internal and public messaging related to public health emergencies.</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Revise the EOC Duty Officer Manual to include procedures related to public health emergencies.</li> <li>Provide training to new emergency management staff.</li> <li>Promulgate the crisis communication plan internally in the city and provide training on it to all personnel with social media responsibilities.</li> <li>Establish an annual review cycle for both the EOC Duty Officer Manual and the City of Renton Crisis Communications Plan and Responses.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>EOC Duty Officer Manual is updated.</li> <li>Annual review of EOC Duty Manual is conducted.</li> <li>Annual review of City of Renton Crisis Communications Plan and Responses is conducted.</li> <li>Related risk management policies and procedures are reviewed every five years.</li> <li>Public health messages are consistently amplified through city media and internal employee channels.</li> </ul>			



<b>Regional Planning Mitigation Strategy</b>			
<b>Lead POC</b> <ul style="list-style-type: none"> <li>Emergency Management Director</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>King County Hazard Mitigation Program Coordinator</li> </ul>	<b>Hazards Mitigated</b> All	<b>Funding Sources/ Estimated Costs</b> Staff time. \$ 0
<b>Strategy Vision/Objective</b> As a partner in the development of the King County Regional Hazard Mitigation Plan, the city will actively engage in contributing to the county-wide initiatives that require stakeholder participation and support. This includes participating in the plan maintenance strategy identified in the plan.			
<b>Mitigation Strategy</b> <ul style="list-style-type: none"> <li>Identify opportunities to support county-wide initiatives identified in the overall King County Regional Hazard Mitigation Plan.</li> <li>Actively participate in the plan maintenance strategy identified in the plan.</li> </ul>			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Produce an annual review and progress report</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Produce a completely revised plan</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Maintain a current and relevant Renton Annex to the King County Regional Hazard Mitigation Plan</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Continue to conduct an annual plan review, to include a review of county-wide initiatives.</li> <li>Identify opportunities for Renton to contribute to county-wide initiatives and participate accordingly.</li> <li>Conduct a comprehensive plan revision in 5 years.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Annual review is completed and progress report produced.</li> <li>5-year plan revision is completed and submitted to King County.</li> </ul>			

## Seiche Risk Awareness and Mitigation Strategy

<b>Lead Points of Contact</b> <ul style="list-style-type: none"> <li>Community and Economic Development Department Planning Director and</li> <li>Long Range Planning Manager</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Department of Ecology, Shoreline Planner</li> <li>Department of Natural Resources, Aquatic Lands – King County Land Manager</li> <li>Department of Fish and Wildlife, Habitat Biologist</li> </ul>	<b>Hazards Mitigated</b> Tsunami/Seiche	<b>Funding Sources/ Estimated Costs</b> Shoreline Master Program Update grants. \$1000
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**Strategy Vision/Objective**  
 Decrease the potential for damages to property from a seiche.

**Mitigation Strategy**  
 Create awareness for property owners with properties vulnerable to seiches., and provide them with resources and information on mitigation. Assess potential development regulations that could mitigate damage to property and natural resource habitat.

<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Identify properties at risk of seiche.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Outreach program to Lake Washington and Cedar River shoreline property during Shoreline Master Program update.</li> <li>Review Best Available Science for potential development regulations that mitigate risk</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Awareness of potential threat and tools to protect if warranted.</li> </ul>
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**Implementation Plan/Actions**

- Leverage grant funding availability during Shoreline Master Program update to include seiche risk awareness.
- Create separate outreach program related to seiches for property owners along the city’s shoreline designations
- Comprehensive review of risk and any potential development regulations meeting Best Available Science to incorporate into master program.
- Master program update is due in 2029, however grant funding and planning work would likely begin three (3) years prior.

**Performance Measures**

- Discussion of outreach methods and adoption (if necessary) of development regulations specific to seiches within the master program.



<b>Terrorism Mitigation</b>			
<b>Lead Points of Contact</b> <ul style="list-style-type: none"> <li>Renton Police Commander – Administrative Services</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Washington State Fusion Center</li> <li>King County Sheriff's Office</li> <li>Seattle Police Department</li> </ul>	<b>Hazards Mitigated</b> Terrorism	<b>Funding Sources/ Estimated Costs</b> Staff time. \$0
<b>Strategy Vision/Objective</b> To establish the City of Renton as a model of proactive terrorism prevention and response through seamless collaboration with the Washington State Fusion Center (WSFC), leveraging intelligence, technology, and community engagement to safeguard residents, critical infrastructure, and public spaces. The long-term objective of this vision is to strengthen the City of Renton’s capacity to detect, prevent, and respond to terrorism-related threats by fostering and maintaining a strong, collaborative relationship with the WSFC.			
<b>Mitigation Strategy</b> The WSFC serves as a vital resource for intelligence sharing and coordination between local, state, and federal agencies. By leveraging WSFC’s capabilities, the City of Renton can enhance situational awareness, improve response capabilities, and reduce vulnerability to terrorism. The City of Renton will establish and maintain regular communication by designating a primary liaison to maintain regular contact with WSFC personnel.			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Establish communication protocols, designate liaison role, and initiate scheduled check-in meetings with WSFC.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Integrate WSFC intelligence into hazard and risk assessments.</li> <li>Develop protocols for disseminating intelligence to relevant departments and agencies.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Expand public awareness campaigns and education within the community.</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Designate and assign Renton role to liaise with WSFC.</li> <li>Initiate and schedule regular check-in meetings with WSFC.</li> <li>Conduct terrorism focused public awareness campaigns and community workshops.</li> <li>Use WSFC intelligence to update Renton’s Hazard Mitigation Plan and other risk assessments.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Number of joint meetings and intelligence exchanges conducted annually.</li> <li>Number of terrorism-focused public awareness campaigns and community workshops.</li> <li>Documented updates to hazard mitigation plan and risk assessments based on WSFC intelligence.</li> </ul>			



## Utility Pumping Facilities Back-Up Power

<b>Lead POC</b> <ul style="list-style-type: none"> <li>Utility Systems Director</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Renton RFA Fire Marshall</li> </ul>	<b>Hazards Mitigated</b> Earthquake, Flood, Severe Weather	<b>Funding Sources/ Estimated Costs</b> Local budget Capital Improvement Programs: \$ 7M (water) \$ 1M (wastewater) \$ 1M (surface water)
<b>Strategy Vision/Objective</b> Improve reliability at utility pumping facilities with on-site standby power systems. These projects could prevent downtime of critical facilities during hazard events in order to maintain public health and safety.			
<b>Mitigation Strategy</b> Critical pumping facilities for the city include 11 domestic water booster pump stations, 20 wastewater lift stations, and 2 stormwater pump stations. Not all of these facilities currently have back-up power. During power outages, pumping facilities that lack back-up power 1) risk disruption to water and wastewater services; 2) reduce flood-control capabilities at stormwater pump stations; and 3) cause additional strain/wear to on-line pumping facilities, which consequently decreases the equipment's life expectancy. The city will evaluate emergency standby power options, including installing on-site generators and increasing fuel storage, to lessen the impact of future power outages at utility pumping facilities.			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Construction of back-up power improvement projects in pre-design phase</li> <li>Identify additional back-up power improvement projects</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Plan and identify funding needs for proposed improvement projects</li> <li>Design and implement priority back-up power improvement projects</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Design and implement remaining back-up power improvement projects</li> <li>Improve overall reliability at critical pumping facilities</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Complete construction of back-up power improvements at four wastewater lift stations.</li> <li>Complete final design and construction of back-up power improvements at two domestic water booster pump stations that are currently in the 30 percent pre-design phase.</li> <li>Allocate capital funding to design and implement additional back-up power improvement projects.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Solutions maintain the continuity of operations, protect property, protect the environment, and protect key economic assets.</li> </ul>			



## Volcanic Ash & Wildfire Smoke Mitigation Strategy

<b>Lead POC</b> <ul style="list-style-type: none"> <li>• Emergency Management Coordinator</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>• King County Public Health</li> <li>• Puget Sound Clean Air Agency</li> </ul>	<b>Hazards Mitigated</b> Volcano, Wildfire	<b>Funding Sources/ Estimated Costs</b> Staff time. \$0
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**Strategy Vision/Objective**  
 The objective is to inform and prepare the community for the impacts of both volcanic ash deposits and wildfire-caused ash. Since the likelihood of volcanic eruption is low and the wildfire ash impacts are sporadic, the strategy will rely on public communication and outreach to ensure residents have an understanding of the hazards affecting the them, actions they can take, and what the city can provide.

**Mitigation Strategy**  
 Conduct an annual public education campaign for ash and wildfire smoke hazard awareness. Use May 18<sup>th</sup>, the anniversary of Mt. St. Helen’s eruption, as an annual ash and wildfire smoke awareness campaign prompt. Campaign will include social media and public communications on the risk to Renton residents and appropriate actions if the hazard occurs. Connect building owners and business owners with air filtration providers as requested. Provide information for individuals on personal preparedness measures (staying indoors, use of appropriate masks), vehicle mitigation efforts (covering cars, avoid driving in limited visibility, dangers to vehicle filtration systems), and methods of securing homes from air quality and ash impacts.

<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>• Community awareness of impacts of volcanic or wildfire caused ash hazards.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>• Normalize ash hazards and impacts as part of wider air quality warnings, with public safety actions known by the community.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>• A well-prepared community with baseline awareness of possible ash and smoke hazards and protective actions they can take.</li> </ul>
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**Implementation Plan/Actions**

- Design survey alongside partners to understand current levels of awareness.
- Design social media and public outreach campaign, including messaging and strategy.
- Implement plan during late spring – summer months.

**Performance Measures**

- Increase in awareness and engagement with post-campaign surveys of community.
- Increase in engagement with outreach efforts (for example, with online media campaign, in-person outreach)



## Water System Risk Assessment

<p><b>Lead POC</b></p> <ul style="list-style-type: none"> <li>Water Utility Engineering Manager</li> <li>Water Maintenance Manager</li> </ul>	<p><b>Partner Points of Contact</b></p> <ul style="list-style-type: none"> <li>Renton RFA</li> <li>Environmental Protection Agency</li> <li>Local Emergency Planning Committee Chair</li> </ul>	<p><b>Hazards Mitigated</b></p> <p>All</p>	<p><b>Funding Sources/Estimated Costs</b></p> <p>Local budget Water Capital Improvement Program. \$ 100,000</p>
<p><b>Strategy Vision/Objective</b></p> <p>Develop a risk and resilience assessment that identifies the most significant malevolent acts and natural hazards to the water utility’s critical assets, reduces vulnerabilities of these critical assets, prepares for the threats that could occur, and mitigates the potential consequences of incidents that do occur.</p>			
<p><b>Mitigation Strategy</b></p> <p>The City of Renton is a community water system that provides supply, treatment, storage, and distribution of dependable and safe water. The Water Utility is required under the 2018 America's Water Infrastructure Act (AWIA) to assess the risks to, and resilience of, its water system. The risk assessment will 1) inventory at-risk water infrastructure that contribute to critical functionality of the water system; 2) evaluate the risk and known vulnerabilities to significant threats and hazards; and 3) implement prevention, protection, and mitigation activities for identified threats and hazards. The Water Utility will develop partnerships with local emergency response and planning groups to foster hazard mitigation activities.</p>			
<p><b>2-Year Objectives</b></p> <ul style="list-style-type: none"> <li>Develop risk assessment.</li> <li>Develop policy changes to mitigate the risks to the critical drinking water infrastructure.</li> </ul>	<p><b>5-Year Objectives</b></p> <ul style="list-style-type: none"> <li>Assess the effectiveness of efforts to secure and strengthen the resilience of critical drinking water infrastructure.</li> <li>Update risk assessment.</li> </ul>	<p><b>Long-Term Objectives</b></p> <ul style="list-style-type: none"> <li>Increase drinking water infrastructure resilience to malevolent acts and natural hazards.</li> <li>Update risk assessment every 5 years per AWIA regulations.</li> </ul>	
<p><b>Implementation Plan/Actions</b></p> <ul style="list-style-type: none"> <li>Develop the water system risk assessment.</li> <li>Use as a prioritized plan for security upgrades, modifications of operational procedures, and policy changes to mitigate risks.</li> </ul>			
<p><b>Performance Measures</b></p> <ul style="list-style-type: none"> <li>Identifies potential improvements that serve multiple purposes to enhance operations and resilience of the drinking water system.</li> </ul>			



<b>Water Utility Seismic Resilience</b>			
<b>Lead POC</b> <ul style="list-style-type: none"> <li>Water Utility Engineering Manager</li> <li>Water Maintenance Manager</li> </ul>	<b>Partner Points of Contact</b> <ul style="list-style-type: none"> <li>Pacific Northwest Seismic Network/Unites States Geological Survey</li> <li>Renton RFA</li> <li>Department of Health</li> </ul>	<b>Hazards Mitigated</b> Earthquake	<b>Funding Sources/ Estimated Costs</b> Local budget, Water capital budgets; Pre Disaster Mitigation. Grant; \$1.8M
<b>Strategy Vision/Objective</b> Reduce potential damage/losses to critical water facilities from an earthquake by 1) installation of seismic shut-off valves on water storage facilities; and 2) development of post-earthquake isolation and control actions. These projects could improve the survivability of the municipal water supply system, reduce loss following an earthquake, and potentially save lives.			
<b>Mitigation Strategy</b> Critical water facilities for the city include nine production wells, one spring, eleven booster pump stations, and ten reservoirs. Because Washington State has one of the highest risks of expected casualties and economic loss from earthquakes in the nation, the city needs water system infrastructure improvements for seismic resiliency. The Water Utility will also evaluate retrofitting six existing reservoirs with seismic valves to automatically shutoff water flow at the tank to prevent complete water loss. The Water Utility will develop post-earthquake isolation and control protocols, which are needed to ensure adequate water storage and distribution during an emergency.			
<b>2-Year Objectives</b> <ul style="list-style-type: none"> <li>Develop policies/protocols for post-earthquake drinking water isolation and control actions.</li> </ul>	<b>5-Year Objectives</b> <ul style="list-style-type: none"> <li>Fund pre-design of seismic valve retrofit.</li> <li>Allocate funding in the capital budget to fund implementation of seismic shut-off valve retrofit.</li> </ul>	<b>Long-Term Objectives</b> <ul style="list-style-type: none"> <li>Seismic valves on all water tanks.</li> </ul>	
<b>Implementation Plan/Actions</b> <ul style="list-style-type: none"> <li>Fund planning, pre-design, and construction of seismic valve retrofit on water reservoirs.</li> </ul>			
<b>Performance Measures</b> <ul style="list-style-type: none"> <li>Solution maintains the continuity of operations and water service.</li> </ul>			