

# City of Shoreline Hazard Mitigation Plan Annex

## Introduction

Shoreline boasts a unique history and character derived from original settlements dating back to the late 1800s. The quality that drew early settlers to the area remains dominant to this day: location. The City of Shoreline offers classic Puget Sound beauty and the convenience of suburban living with the attractions of nearby urban opportunities.

Before becoming a city in 1995, the City of Shoreline was an island of unincorporated King County surrounded by the older cities of Seattle, Edmonds, Woodway and Lake Forest Park. Covering 11.70 square miles, Shoreline has an estimated population of more than 56,000 residents according to a 2019 US Census Bureau estimation. That represents a growth of 7% from the 2010 census. This trend is expected to continue at close to the 7% rate.

Over the years, the Shoreline community has developed a reputation for strong neighborhoods, excellent schools and abundant parks. Shoreline is primarily residential with more than 70% of households being single-family residences. Over 25% of the homes in Shoreline speak a language other than English. Shoreline has a 9% poverty rate and 8.5% of residents under 65 have some form of disability. Shoreline is home to more than 3,600 veterans.

In 2017, Shoreline, WA had a median household income of \$76,271. The economy of Shoreline, WA employs 29.7k people. The largest industries in Shoreline, WA are Health Care & Social Assistance (4,365 people), Retail Trade (3,468 people), and Professional, Scientific, & Technical Services (3,095 people), and the highest paying industries are Professional, Scientific, & Technical Services (\$71,271), Utilities (\$71,174), and Information (\$68,211). Median household income in Shoreline, WA is \$76,271. Males in Shoreline, WA have an average income that is 1.36 times higher than the average income of females, which is \$53,882. The income inequality in Shoreline, WA is 0.467, which is lower than the national average.

Shoreline Community College, the Washington State Department of Transportation Regional Headquarters and the Washington State Public Health Laboratory are all located in the city with the Washington Department of Ecology expected to have presence in the city soon.

Shoreline is experiencing extensive mixed-use, vertical multi-family growth with a major residential/commercial development project planned for a large area of the city that previously hosted a large shopping complex. This project should be completed within the next 5 years.

The expected continued increase in population and employment opportunities in the city will present many challenges to the city's overall hazard mitigation process. Impacts to roads, surface water and wastewater systems will likely increase the need for ensuring the current infrastructure is capable of handling increased usage.

### Jurisdiction Profile

#### City of Shoreline

Incorporated: 1995

Area: 11.70 sq. miles

Land: 11.67 sq. miles

Water: .03 sq. miles

Government: Council-Manager

Population: 56,752



### Jurisdiction Point of Contact:

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Entity: City of Shoreline

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### Plan Prepared By:

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Emergency Management practices will focus heavily on public outreach and training in order to progress with the continued development of the city. This may mean prioritizing specific projects and areas of operation within the various programs to ensure that target capabilities are met. Unfortunately, this may also mean that other areas will have to be scaled back or eliminated altogether without additional staffing and funding.

## Jurisdiction Risk Summary

### Hazard Risk and Vulnerability Summary

HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<b>Avalanche</b>	Shoreline is not at risk for avalanches.	N/A	N/A
<b>Earthquake</b>	Earthquakes remain a major concern for all areas of the region. While large earthquakes do not occur often, they have the ability to cause widespread damage when they do occur. City infrastructure can be heavily damaged almost immediately.	Shoreline’s proximity to the Seattle fault zone, the South Whidbey Island Fault Zone and the Cascadia Subduction Zone places the city at high risk for impact from earthquakes.	The most recent significant earthquake that affected the City occurred in 2001. Shoreline experienced minor damage overall from the quake. A major earthquake would impact all critical infrastructure in the city and cause a major disruption in services for residents.
<b>Flood</b>	Flooding can occur in any area within the city. Primary flood concern areas in Shoreline have been identified along most of the coastline including the area that leads into Boeing Creek and two areas farther within the city limits. Those areas are in the vicinity of Ronald Bog Park and Twin Ponds Park.	One repetitive loss property has been identified in the Repetitive Loss Report.  While any area of the city may experience some type of flooding during heavy rainfall events, the following neighborhoods have floodplain areas: <ul style="list-style-type: none"> <li>• Richmond Beach</li> <li>• Innis Arden</li> <li>• Parkwood</li> <li>• Meridian Park</li> </ul> Buildings affected by flooding would primarily be residential.	The last significant flooding incident occurred during a storm in December of 2007. During a two-week period, the city received heavy continuous rainfall which led to flooding in several areas of the city. This incident led to several improvement initiatives, some of which are still being pursued.
<b>Landslide</b>	Shoreline has many areas that are of concern for landslides. Most of these areas are along the coastal side of the city although some areas away from the coast may be at risk as well.	There are several steep slope areas in Shoreline that make the city vulnerable. Coastal areas with homes on bluffs or high hills would be most at risk. The railroad along the coast would be at significant risk of damage from a landslide.	It is believed that there could be a large impact from a landslide in many different areas of the city. Most areas that are in landslide risk areas are residential.

HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
<p><b>Severe Weather/ Severe Winter Weather</b></p>	<p>With climate change having an apparent impact on the region’s weather, storms that could bring heavy rains, damaging winds, snow, freezing temperatures, tornadoes and lightning can impact the area at any time. Storms occur most commonly during the fall and winter months.</p>	<p>Severe weather can bring downed power lines, downed trees and localized flooding. All of these situations could impact a large portion of residents, many within the vulnerable population of Shoreline.</p>	<p>Severe weather generally occurs with some warning but even with advanced warning, the impacts can be city-wide. Power outages and transportation disruption are among the biggest impacts from severe weather. Damage to businesses and homes from falling trees may also occur.</p>
<p><b>Tsunami</b></p>	<p>The tsunami risk to Shoreline is minimal, however given the coastal areas in Shoreline, the risk is high enough to have studied the impact to the city.</p>	<p>Over 33 homes are located along the coastline of Shoreline that would be at risk. Ronald Wastewater District Lift Station #12 and wastewater pressure mains as well as the King County Metro Wastewater Lift station at KayuKayu Park would be at risk and if damaged could lead pose a significant health hazard. A large enough tsunami would also impact the railroad that runs along the coastline. A tsunami would likely trigger cascading events such as landslides.</p>	<p>Most of the affected area would contain residences. There could also be an impact to the rail system that runs along the coast of Shoreline.</p>
<p><b>Volcano</b></p>	<p>Shoreline is not at risk from direct impact of volcanoes. Ashfall would be the biggest concern.</p>	<p>N/A</p>	<p>N/A</p>
<p><b>Wildfire</b></p>	<p>Shoreline has no large wilderness areas or open land masses that would be at risk for what many would consider a wildfire. However, there are many wooded areas that may be at risk from a suburban wildfire.</p>	<p>Areas at risk would include Shoreview Park and Hamlin Park. Both parks have residential areas in close proximity as well as schools in the vicinity. The Highlands neighborhood is densely wooded neighborhood that would also be at risk.</p>	<p>City parks, residential areas and schools are all in the zones that would be at risk. There would also be the possibility for health impacts from smoke.</p>
<p><b>Cyber Attack</b></p>	<p>Shoreline relies heavily on computers and networks for day to day business and file management. Not only are these programs held internally but some are</p>	<p>Cyber-attacks continue to grow nationwide and the cyber criminals continue to develop new ways to compromise networks. Threats can be mitigated through employee education and training as well as</p>	<p>While attempts have been made to gain access to Shoreline’s network through a variety of methods, Shoreline has not had any major impacts from cyber-terrorism.</p>

	external programs held in the “cloud.”	maintaining a strong threat detection program.	
<b>Dam Failure</b>	Shoreline has four dams within the city limits. None of the dams are considered major dams.	Dam failures within the city could lead to loss of local roadways and create some erosion issues in localized areas.	Dam failures in the Shoreline area would most likely impact local transportation routes.
<b>Hazardous Materials Incident</b>	With major transportation routes running through the city, Shoreline maintains a risk of hazardous material incidents from the transportation of materials rather than fixed locations.	Vehicles and trains transport hazardous materials routinely through the city.	Any impact to the city would depend solely on the type and amount of material spilled. The impact would most likely be to residents and businesses along the major transportation routes.
<b>Public Health Emergency</b>	Public health emergencies cover a wide range of impacts from a variety of sources that could impact any community at any time.	5.7% of Shoreline’s population are under 5 years old and 16.9% are over the age of 65 making them more vulnerable to health emergencies. Even with that in mind, depending on the type of health emergency, all residents could be vulnerable.	There have been no major health events in Shoreline since its incorporation. Impacts would vary depending on the type of event.
<b>Terrorism</b>	The most likely terrorism threat to Shoreline would come from domestic terrorism acts such as active shooter situations.	Shoreline has no federal level buildings, nor does it have any military presence. Businesses and schools would be the most at risk from a domestic terrorist incident.	The level of impact would largely depend on the target.

## Hazard and Asset Overview Map(s)

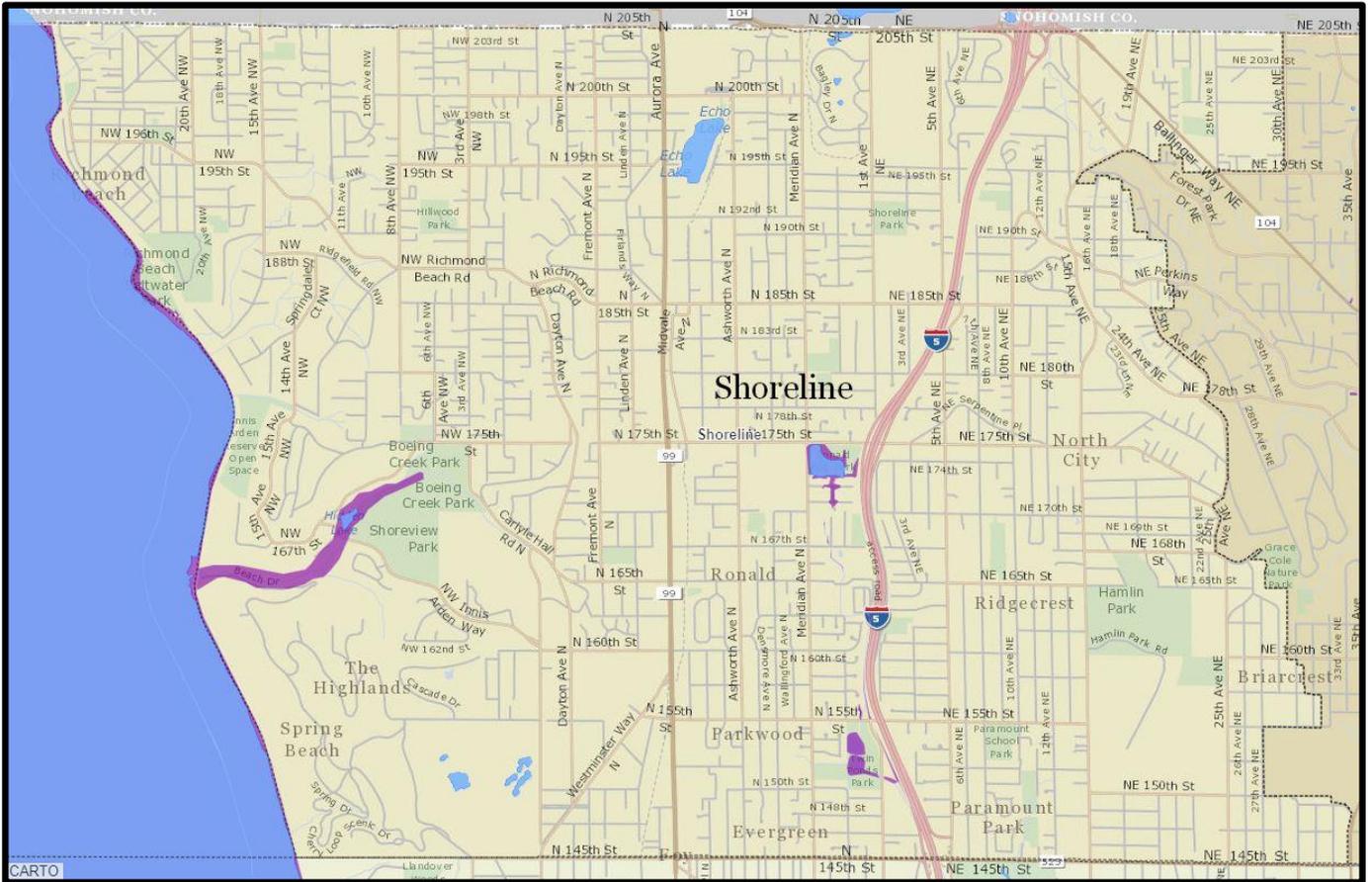


Figure 1: Floodplain (map source King County Hazard and Vulnerability ArcGIS)

### Legend:

-  Floodplain Area

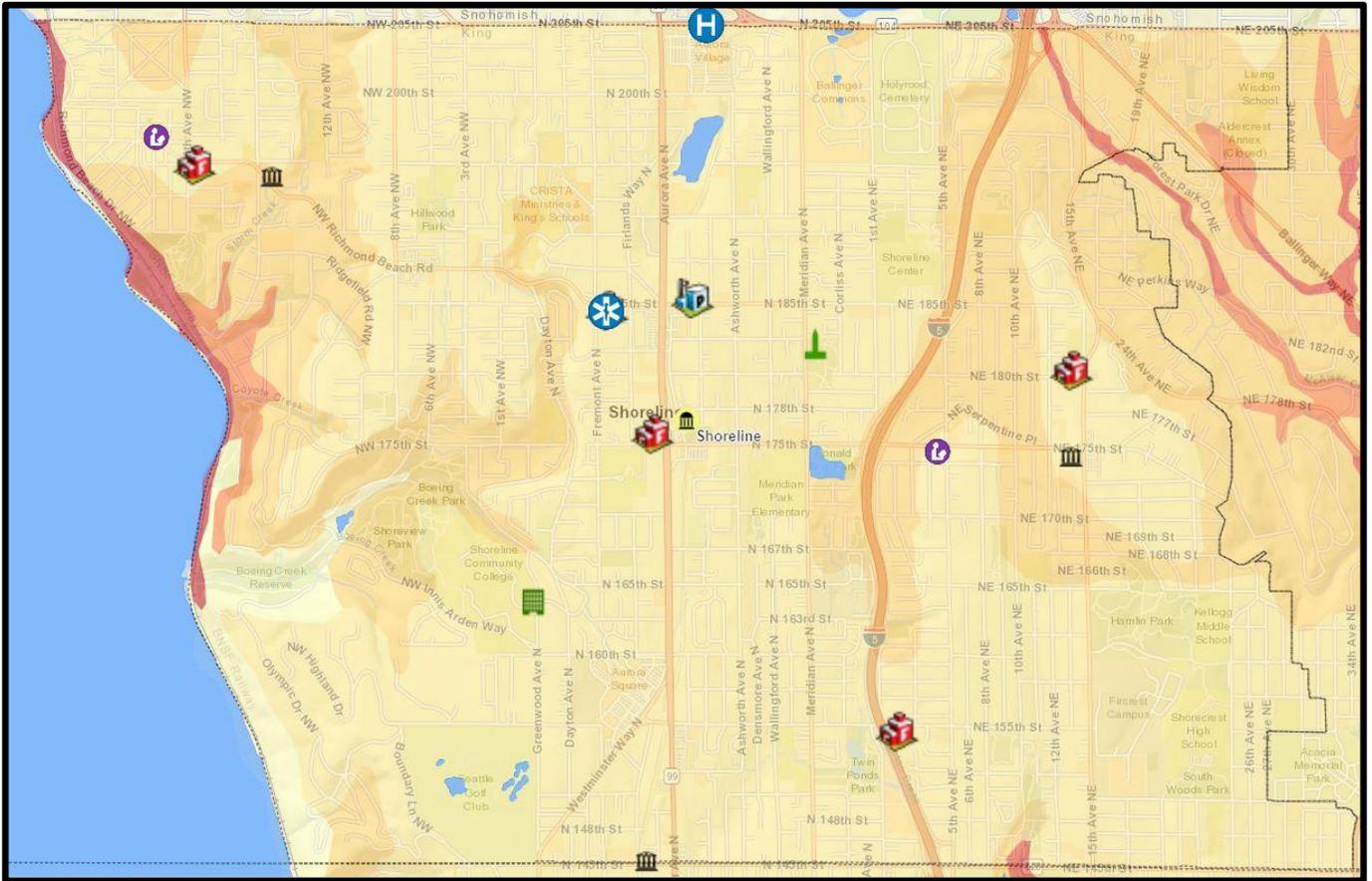
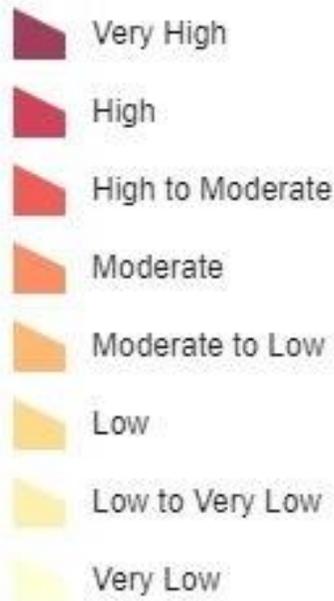


Figure 2: Liquefaction Hazard (map source King County Hazard and Vulnerability ArcGIS)

Legend (Risk Level):



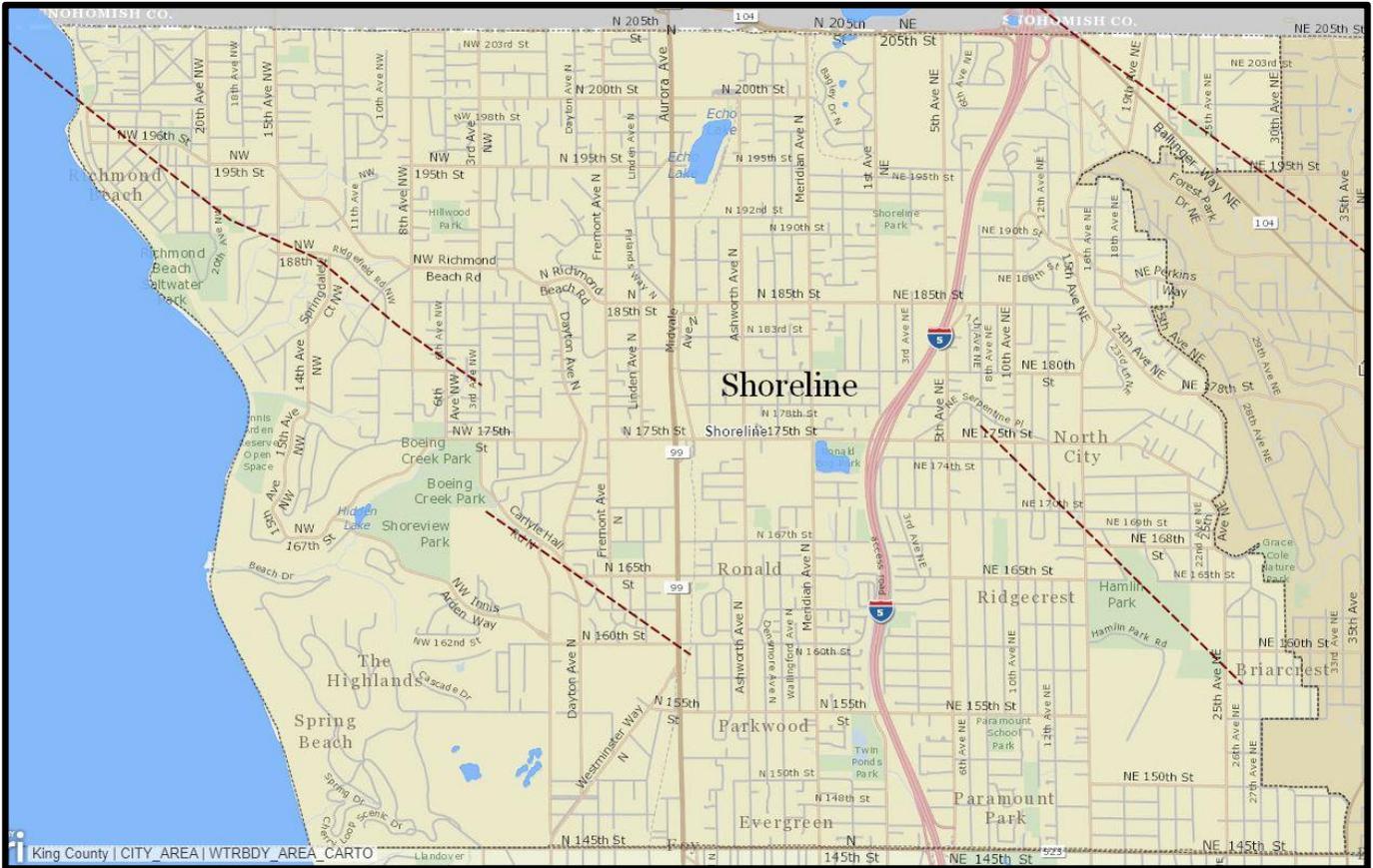


Figure 3: Active Faults in Shoreline (map source King County Hazard and Vulnerability ArcGIS)

## Plan Update Process

The Shoreline Hazard Mitigation Plan is held in the Office of Emergency Management. The Emergency Manager is the lead on the update process. As there was a change in the Emergency Manager position in Shoreline in early 2018 and others have left the organization since the last update that may have been involved in the process between 2015 and 2018, there may be some information that was not available.

The new Emergency Manager evaluated the previous Hazard Mitigation Annex as part of his onboarding process. The plan was compared to other regional plans and evaluated for content. The Emergency Manager discussed the plan with a variety of departments within the city in preparation for the update process.

In April of 2019, Emergency Manager, Jason McMillan met with Derrick Hiebert, Hazard Mitigation Strategist for King County Emergency Management to discuss the update process.

Following this meeting, an update process was established to include meetings with pertinent city departments and the public for input. All of these actions occurred between April and September of 2019.

A social media post was placed as a pinned post on the Shoreline Office of Emergency Management Facebook page in an attempt to gather input from the public. Facebook has been a reliable source of information from residents during previous events and incidents so it was hoped that there would be a large response. Unfortunately, there were no responses to the pinned post. Facebook was used as an advertising medium for the plan update process.

In May of 2019 an online survey was launched. The survey asked questions pertaining to hazards in the city, number of incident occurrences experienced by residents and impacts of events in specific neighborhoods. The survey remained open until September. The survey was presented to the public through social media posts and the only local media outlet. 20 residents and one business owner responded to the survey.

When asked if they were very concerned, somewhat concerned or not concerned about the impact of disasters in their neighborhoods, 45% responded that they were somewhat concerned. 40% were very concerned and 15% were not at all concerned. The top three hazards of concern were earthquakes, winter/severe storms and power outages. Power outages were included separately since they may occur as a result of a variety of incidents. Of least concern were landslides, tsunamis and flooding with less than 5% considering any of the three to be major threats to their neighborhoods.

None of those that answered the poll reported that they were in a floodplain or flood threat area. Only 2 of those polled have flood insurance.

When asked to rate the top three methods of reducing impacts from hazards, 86% agreed that preparedness and coordination was the most important mitigating action. 78% said that education and awareness activities were second on the list and 59% placed local planning and regulations in third place.

77% of those taking the poll stated that they had no suggestions for projects that may protect their community from the impacts of hazards. 22% said that they did have ideas for projects that may help protect the community. The ideas given were:

- Reach people who are non-English speaking through churches, schools, and other community programs they might be attending.
- Emergency planning workshops similar to [another local organization] the half day classroom model that introduces citizens to fire extinguishers, sanitation, and the Shoreline post-disaster communication plan. It is also helpful to introduce citizens to the Comprehensive Emergency Plan, and their role in recovery from a disaster.
- Information, planning and preparation are the best ways to protect our communities.

A public meeting was held to discuss the Hazard Mitigation Plan and the update process. The meeting was held at Shoreline City Hall on August 21, 2019 and was advertised through social media and the local media outlet. Only 4 residents came to the meeting. Those that came to the meeting were given a printed copy of the online survey so they could provide their input.

When answering the printed surveys, the answers given by those in attendance aligned closely with the answers given by those that responded online.

A meeting was held with the various city departments that were involved in the previous update on August 14, 2019. The previous plan was reviewed and the goals and actions listed in that plan were discussed. The results of that meeting are included as the 2020 strategies later in this plan.

Additional meetings were held with John Featherstone from the Surface Water Utility and Heather Maiefski from Planning and Community Development to clarify strategies and update the city’s Flood Insurance Program Compliance information.

Information for the plan update was gained from a variety of resources including information gained from the King County Hazard Mitigation Plan, United States Geological Survey, Center for Disease Control, King County Health Department, United States Census Bureau and the United States Fire Administration, among others.

### *Jurisdiction Planning Team*

NAME	TITLE	ORGANIZATION	CONTRIBUTION
<b>Jason McMillan</b>	Emergency Manager	Emergency Management, City of Shoreline	Project lead
<b>Randy Witt</b>	Director, Public Works	Public Works, City of Shoreline	Contributor
<b>Ray Allshouse</b>	Building Official	Planning and Community Development, City of Shoreline	Contributor
<b>Tricia Juhnke</b>	City Engineer	Public Works, City of Shoreline	Contributor
<b>John Featherstone</b>	Surface Water Utility Manager	Public Works, City of Shoreline	Contributor
<b>Lance Newkirk</b>	Utility and Operations Manager	Public Works, City of Shoreline	Contributor
<b>Robert Crozier</b>	Code Enforcement and CRT Supervisor	City Manager’s Office, City of Shoreline	Contributor
<b>Heather Maiefski</b>	Assistant Planner	Planning and Community Development, City of Shoreline	Contributor
<b>Colleen Kelly</b>	Manager, Community Services Division	Community Services Division, City of Shoreline	Contributor, Reviewer
<b>Clayton Putnam</b>	Wastewater Specialist/Inspector	Ronald Wastewater District	Contributor
<b>Noel Hupprich</b>	Development Review and Construction Manager	Public Works, City of Shoreline	Contributor
<b>Rachael Markle</b>	Director, Planning and Community Development	Planning and Community Development, City of Shoreline	Contributor

<b>Autumn Salamack</b>	Environmental Services Coordinator	Community Services Division, City of Shoreline	Contributor
<b>Victoria Alie</b>	Administrative Assistant, Community Services Division	Community Services Division, City of Shoreline	Contributor, Reviewer

## Public Outreach

The Shoreline Office of Emergency Management attempted to gain public involvement and input on the plan update process. Most of the attempts to engage the public were met with disappointing results. This may be due to the public’s unfamiliarity with hazard mitigation practices and goals. Prior to the next update, the Shoreline Office of Emergency Management will make a concerted effort to educate the public on the various plans associated with emergency management.

### *Public Outreach Events*

EVENT	DATE	SUMMARY	ATTENDEES
<b>Facebook Outreach</b>	04/22/2019	Residents were asked to provide input via Facebook. They were provided the same questions as would later appear in the online survey.	Nobody responded to the request for input.
<b>Online survey launched</b>	05/2/2019	An online survey was launched via SurveyMonkey. The survey remained active until September 1, 2019. The survey consisted of 11 questions. Notice of the survey was made via local media outlet and social media as well as during public presentations performed by Shoreline Office of Emergency Management.	21 responses were captured.
<b>Public Outreach – Celebrate Shoreline</b>	8/17/2019	Materials were handed out to invite the public to the upcoming meeting. Residents were also asked questions relevant to the plan update at the event.	General public attending the event.
<b>Public meeting</b>	8/21/2019	A public meeting was held to present the highlights of hazard mitigation planning and to engage the public in the process.	4 residents came to the meeting.

## Jurisdiction Hazard Mitigation Program

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

Each city department 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

The City of Shoreline hazard Mitigation Plan brings departments from throughout the city organization together with outside organizations to establish mitigation action priorities. Development, implementation and effectiveness are continually evaluated throughout the life cycle of the Hazard Mitigation Plan. Key actions are coordinated in conjunction with other departments to ensure a cohesive implementation of hazard mitigation actions based on the evaluation of various plans and procedures from other departments. In Shoreline, the Mitigation Plan continues to be coordinated with the Capital Improvement Plan, Comprehensive Emergency Management Plan, and Comprehensive Plan, as in the past.

As planning and funding cycles vary and projects may need to be adjusted, each department meets regularly to ensure that the most up to date information is available when implementing and completing hazard mitigation actions. This is the case for each Hazard Mitigation Plan cycle. In order to ensure that other city plans and projects include consideration of the Hazard Mitigation Plan, project coordinators are encouraged to review the actions listed in the Hazard Mitigation Plan when considering and implementing new city projects.

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

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

The next plan update is expected to be due in April 2025. The county will lead the next regional planning effort, beginning at least 18 months before the expiration of the 2020 plan.

### Plan Goals

1. Access to Affordable, Healthy Food
2. Access to Health and human Services
3. Access to parks, and Natural Resources
4. Access to Safe and Efficient Transportation
5. Affordable, Safe, Quality Housing
6. Community and Public Safety
7. Early Childhood Development
8. Economic Development
9. Equitable law and Justice
10. Equity in Government Practices
11. Family Wage jobs and job Training
12. Healthy Built and Natural Environments
13. Quality Education
14. Strong, Vibrant Neighborhoods

This continued participation of the City of Shoreline in the county led update process will be contingent upon a review of the Hazard Mitigation Plan update process review prior to the 2023 Letter of Intent submission due date and will only be submitted if it is in the best interests of the residents of the City of Shoreline.

### Continued Public Participation

The City of Shoreline maintains substantial public outreach capabilities, focusing on personal preparedness, public education and training. Information on ongoing progress in implementing the hazard mitigation plan will be integrated into public outreach efforts. This will provide Shoreline 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.

### Hazard Mitigation Authorities, Responsibilities, and Capabilities

#### Plans

PLAN TITLE	RESPONSIBLE AGENCY	POINT OF CONTACT	RELATIONSHIP TO HAZARD MITIGATION PLAN
<b>Comprehensive Plan</b>	Planning and Community Development	Heather Maiefski	Guidance for land use and development
<b>Comprehensive Emergency Management Plan</b>	Shoreline Office of Emergency Management	Jason McMillan	Referenced in Annex and Mitigation Strategies
<b>Transportation Improvement Plan</b>	Transportation Services/Public Works	Nytasha Walters	Guidance for related strategies
<b>Surface Water Master Plan</b>	Surface Water Utility/Public Works	John Featherstone	Guidance for related strategies
<b>2019-2020 Biennial Budget</b>	Administrative Services	Sara Lane	Guidance for financial availability for strategies
<b>2019 – 2024 Capital Improvement Plan</b>	Administrative Services	Sara Lane	Guidance for identifying and prioritizing projects

#### Programs, Policies, and Processes

PROGRAM/POLICY	RESPONSIBLE AGENCY	POINT OF CONTACT	RELATIONSHIP TO HAZARD MITIGATION PLAN
<b>Building Codes</b>	Planning and Community Development	Ray Allshouse	Building code enforcement
<b>Emergency Management Program</b>	Shoreline Office of Emergency Management	Jason McMillan	Plan Coordination/Primary POC
<b>Critical Areas Ordinance</b>	Planning and Community Development	Heather Maiefski	Planning regulations
<b>StormReady</b>	Shoreline Office of Emergency Management	Jason McMillan	Ensures Shoreline can respond to severe weather events
<b>Fire Codes</b>	Fire	Shoreline Fire Marshal	Planning regulations
<b>National Flood Insurance Program</b>	Planning and Community Development	Heather Maiefski	Development regulations

### Entities Responsible for Hazard Mitigation

AGENCY/ORGANIZATION	POINT OF CONTACT	RESPONSIBILITY(S)
Public Works	Randy Witt	Management of public works projects
Planning and Community Development	Heather Maiefski	Implementation of relevant strategies
Planning and Community Development	Ray Allshouse	Implementation of relevant strategies
Office of Emergency Management	Jason McMillan	Hazard Mitigation Plan management, implementation of relevant strategies
Public Works/Surface Water	John Featherstone	Implementation of relevant strategies
Environmental Services	Autumn Salamack	Implementation of relevant strategies

### National Flood Insurance Program

#### National Flood Insurance Program Compliance

What department is responsible for floodplain management in your community?	Planning and Community Development
Who is your community's floodplain administrator? (title/position)	Assistant Planner, Heather Maiefski
What is the date of adoption of your flood damage prevention ordinance?	08/2012
When was the most recent Community Assistance Visit or Community Assistance Contact?	3/2019
Does your community have any outstanding NFIP compliance violations that need to be addressed? If so, please state what they are?	No
Do your flood hazard maps adequately address the flood risk within your community? If so, please state why.	Yes. At risk areas are identified.
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?	Yes. Any ongoing training to support program mission.
Does your community participate in the Community Rating System (CRS)?	Yes.
How many Severe Repetitive Loss (SRL) and Repetitive Loss (RL) properties are located in your jurisdiction?	SRL: 0 RL: 1
Has your community ever conducted an elevation or buy out of a flood-prone property? If so, what fund source did you use? If not, are you interested in pursuing buyouts of flood prone properties?	No

## Hazard Mitigation Strategies

### 2015 Hazard Mitigation Strategy Status

STRATEGY	DESCRIPTION	PRIORITY	STATUS
<b>Maintain compliance and good standing under the National Flood Insurance Program</b>	This will be accomplished through the implementation of floodplain management programs that, at a minimum, will meet the minimum requirements of the NFIP.	Moderate	Ongoing
<b>The City of Shoreline City Hall facility, which is approximately 4 years old, doesn't have an alternate power supply.</b>	The City will be researching funding opportunities and will endeavor to have an alternative power supply in place by 2016.	High	Completed
<b>Perform public education outreach to our neighborhoods using the Map Your Neighborhood" tool so ensure communities can take care of themselves and those who live around them during a disaster event.</b>	<ul style="list-style-type: none"> <li>• Work with the Neighborhood Associations</li> <li>• Utilize CERT members to assist in this outreach</li> <li>• Use materials from the "What to Do to Make it Through" and "Take Winter by Storm" Campaigns.</li> <li>• Identify those homes within the neighborhoods that have vulnerable or isolated populations living in them, specifically the Adult Family Homes and Boarding Homes.</li> <li>• Utilize Social Media and Emergency Alert Systems to communicate preparedness and emergency messaging</li> </ul>	Moderate	Ongoing
<b>Ensure operational readiness of the Emergency Operations Center and establish the backup EOC in a new location at the Washington State Public Health Lab.</b>	<ul style="list-style-type: none"> <li>• Identify technologies that will support communications internally and externally at the EOC</li> <li>• Reduce the noise level in the EOC by moving the Communications Team to a new location and researching sound proofing technologies.</li> <li>• Establish a floor plan, communications plan, and technology issues for the back-up EOC</li> <li>• Activate the EOC at least once a year for an exercise and activate the back-up EOC once it is established at least every 2 years.</li> </ul>	High	Partially Completed/Ongoing
<b>Salt Water Park Pedestrian Bridge Repair – replacing the decking and improving the structural integrity</b>	This bridge is the only way to access the beach and it crosses the Burlington Northern Railroad lines.	High	Completed

of the only access to Richmond Salt Water Beach Park.			
Storm water pipe replacement program – replace aging storm water infrastructure throughout the city.	Storm pipes throughout the city are in need of evaluation and possible replacement.	Moderate	Ongoing
Surface Water Basin Planning	Identify drainage, water quality, and habitat issues within specific drainage basins, and prioritize mitigation strategies.	Moderate	Completed initial round of City-wide basin planning
City of Shoreline will consider participating with Community Rating Systems for communities who participate in the National Flood Insurance Program (NFIP).	Look into advantages and disadvantages of participating in the CRS and format plan to implement program.	Low	Ongoing
Study the feasibility of replacing the aging Hidden Lake bridge on 10th Ave NW that is built on a ravine.	Bridge structural sufficiency rating is at a point that will require replacement soon.	Moderate	Completed
Begin implementing strategies identified in the City of Shoreline Climate Action Plan.	Review strategies developed for the CAP and include in planning and mitigation actions as deemed relevant.	Moderate	Ongoing
Require new development to be designed and constructed to reduce or eliminate flood damage by requiring use of Low Impact Development techniques as required under the existing City Code.	Continue to execute program.	Moderate	Ongoing
Implement updated international building and residential codes.	N/A	High	Ongoing
Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with properties with	N/A	Moderate	Ongoing

exposure to repetitive losses as a priority.			
<b>Continue to support the county-wide initiatives identified in this plan.</b>	N/A	Low	Ongoing
<b>Actively participate in the plan maintenance strategy identified in this plan.</b>	Actively participate in process when plan comes up for renewal in 2020.	Moderate	Ongoing
<b>Integrate the Mitigation Plan findings into planning and regulatory documents and programs.</b>	Plan for implementation of strategies developed based on Mitigation Plan.	Moderate	Ongoing

## 2020 Hazard Mitigation Strategies

STRATEGY	LEAD AGENCY/POC	TIMELINE	PRIORITY
<b>Ensure Community Resilience</b>	Emergency Management/Jason McMillan	Public education measures are being reviewed and the Ready Shoreline program should be deployed by the beginning of 2020.	High
<b>Ensure operational readiness of the Emergency Operations Center</b>	Emergency Management/Jason McMillan	Funding being sought for EOC maintenance and upgrades. Location for alternate EOC being sought with the intention of securing location by end of 2020.	High
<b>Implement strategies identified in the City of Shoreline Climate Action Plan.</b>	Environmental Services Coordinator/Autumn Salamack	Projects are being discussed and items identified for possible implementation to begin in 2020.	Moderate
<b>Implement updated international building and residential codes.</b>	Building Official/Ray Allshouse	As international codes are updated	High
<b>Reduce possible flooding impacts to vulnerable areas</b>	Surface Water/John Featherstone	Projects have been identified and are planned for various stages of progress over the next 5 years	Moderate