

City of Kenmore Plan Annex

Introduction

The City’s Comprehensive Plan Vision Statement states that, “Kenmore is a place that residents, businesses and visitors find welcoming, with courteous people, and that offers a high quality of life to live, raise children, shop, work, recreate, and socialize.” The City recognizes its Lake Washington waterfront as a significant local and regional asset and efforts to connect the community to the waterfront through a variety of park projects continue. After a concerted planning effort, Kenmore has developed an identifiable, walkable downtown that will soon be supported by regional bus rapid transit (BRT). Kenmore is home to the Kenmore Air seaplane base and the City is pursuing plans for future regional pedestrian ferry service between the City and Seattle. Kenmore supports the character of its single-family residential neighborhoods but offers a diversity of housing types to provide a choice of attractive living accommodations for all residents. The City has significant natural and environmentally sensitive areas, including Swamp Creek, the Sammamish River, Lake Washington, steep slopes, and a great blue heron rookery.



Jurisdiction Profile

Date of Incorporation—
August 31, 1998

Type of Government—
Seven-member City Council that selects one of its members as the Mayor. The Council appoints a City Manager to provide direction to all City departments.

Current Population—
23,320

Location and Description—Kenmore is about 6 square miles in size, located in north King County between the cities of Bothell and Lake Forest Park. The City extends along the northeastern shoreline of Lake Washington and is bisected from east to west by the Sammamish River. Swamp Creek and its extensive wetlands divide the northern portion of the city. Kenmore is primarily developed with single-family neighborhoods. Most commercial and multifamily development stretches along SR-522 which crosses the City from east to west.

Development Trends

The City anticipates that an additional 3,667 housing units will be built in Kenmore over the 25 years between 2010 and the 2035. An additional 3,079 jobs are expected. The City continues work to support development of a very large (40+ acre) parcel adjacent to Lake Washington and the Sammamish River.

Regional policy documents assume Kenmore will become an important subregional job, service, cultural, and housing center with strong links to the regional transportation system. Bus rapid transit (BRT) is scheduled to arrive in Kenmore in 2024. The City has put in place a transit-oriented development district to encourage high density development--including affordable housing--near the proposed BRT station.

This new residential and commercial development, along with additional commuter traffic through Kenmore, will increase the City's at-risk population.



The City will be replacing its main bridge over the Sammamish River in the next few years, reducing the City's hazard vulnerability. Additional significant pedestrian and bicycle improvements are planned along major arterials.

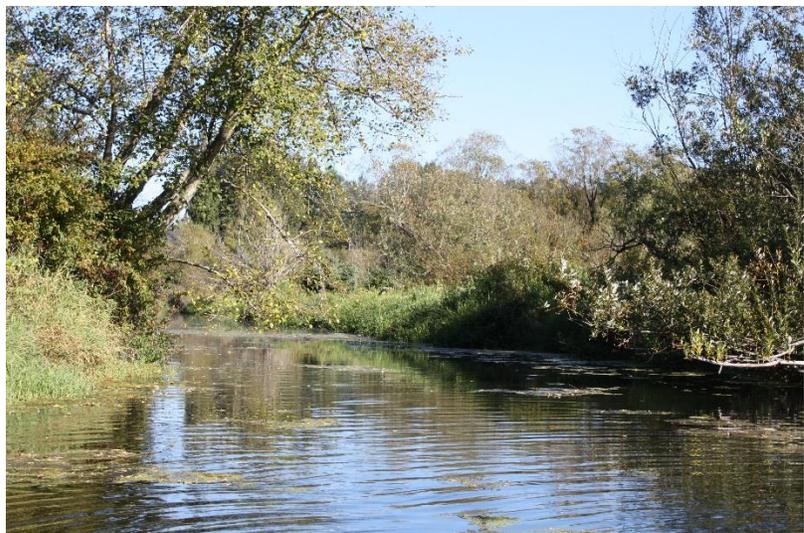
Recent updates to Kenmore's critical area regulations (including geologically hazardous area and flood regulations) will protect environmental resources and improve public safety. In particular, improved information on steep slopes should help ensure reduced risks for future development.

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City of Kenmore Risk Summary

Hazard Risk and Vulnerability Summary

HAZARD	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
Avalanche	There is no risk of avalanche in Kenmore	N/A	N/A
Earthquake	Kenmore is near several faults including the Seattle Fault. Since incorporation the City has experienced a significant earthquake, the 6.8 magnitude Nisqually Earthquake in 2001. Kenmore is also located within the Seismic Design Category D ₁ . The City has adopted good earthquake regulations for new structures and infrastructure as well as alterations to existing buildings. Kenmore is mostly built out as a bedroom community and has existing single-family structures. Most of these existing structures are light-weight, wood-framed structures better suited to seismic activities.	Kenmore has two bridges that are nearing the end of their life that may be vulnerable to a severe earthquake. The West Sammamish River Bridge was constructed in the 1930's, and its current sufficiency rating is 6.75 out of 100. 100 is considered as an entirely sufficient bridge, typically new. The City plans to replace the bridge over the next few years. Reconstruction is expected to begin in 2020. The Little Swamp Creek Bridge at NE 175 th St has a sufficiency rating of 40 out of 100; which requires retrofitting. However, retrofitting costs are equivalent to replacement costs. The City is currently exploring funding options.	Although Kenmore has experienced a significant earthquake, no significant damage was reported.
Flood	Portions of land adjacent to the Swamp Creek and Sammamish River are within the Special Flood Hazard Zone. The city has good floodplain management regulations for new construction and has limited development in this area; however, there are some structures already present in the floodplain. The City has previously purchased vulnerable property via grants and City funding. However, there are still a few single-family	There are approximately 10 single-family residences, 5 multi-family parcels and a few commercial properties located in the Special Flood Hazard Zone along Swamp Creek that experience flooding when the water is high. Although the properties flood, only a few structures experience flooding.	A few single-family residences experience repetitive damage due to flooding.



	residential properties that experience flooding.		
Landslide	Kenmore has steep slopes that have been designated Landslide Hazards. The city has good Critical Area regulations that limit new development. However, there were homes built on the Landslide Hazards prior to these regulations being in place.	The City has recently studied the City for potential landslide hazards based on Lidar technology. Based on the information from the study the City has updated its Landslide Hazard maps and regulations.	The study identified slopes potentially subject to landslides. Some landslides appear to be active and some are not. The active landslides are being monitored by the City and mitigation measures are being considered.
Severe Weather	Kenmore is at risk for heavy rain, heavy wind as well as snow & ice weather events.	Heavy rain can result in localized flooding and saturated soils. Erosion can occur which may litter the sidewalks, bike lanes and roadways with debris. Saturated soils can weaken tree stability and there is a potential for trees to fall in this type of weather event. Heavy wind can result in leafy and woody debris scattered on sidewalks/paths, bike lanes and roadways as well as other City owned property. There is also a potential for large branches or entire trees to fall onto public property. Snow and ice have the potential to affect all sidewalks, bike lanes and roadway making it dangerous and difficult to travel by vehicle or as a pedestrian.	Severe weather events can impact all City infrastructure including but not limited to sidewalks/paths, bike lanes, roadways and other public property.
Tsunami	Kenmore is not at risk for a tsunami, but could experience a “seiche”—a wave off of Lake Washington. Studies have not been done to show the potential inundation area in the City.	Most of the area potentially at risk is developed with commercial uses, including Kenmore Air, CalPortland, and two marinas; however, a large condominium complex also borders the north end of the Lake.	Significant damage could be done by a seiche. Total impact cannot be evaluated since mapping is incomplete and no recorded incidents exist.
Volcano	Kenmore could be affected by ashfall from nearby volcanoes (Mt. Rainier, for example).	Ash fall models are not available to assess vulnerability. Although Mt. Rainier is not presently active, the potential threat is ongoing.	Ashfall could impact City infrastructure and waterways as well as private property. Ash can also clog machinery.



Wildfire	<p>The city has only a small amount of open natural space that has the potential for wildfire, but a seasonal risk impacted by climate change does exist.</p> <p>The majority of structure fires in the city are residential homes averaging about 3 per year requiring additional outside resources.</p>	<p>Swamp Creek and Saint Edward State Park are large natural areas bordered by residential homes and Bastyr University. Limited access and difficult terrain pose challenges for firefighting.</p> <p>Existing mutual aid agreements have been sufficient to provide additional resources for fighting structure fires and building codes requiring fire sprinklers in single family residential homes should offset the increase in number of homes in the city.</p>	<p>In the past 5 years, 12 small fires (less than 100' x 100') have been reported and extinguished.</p> <p>Structure fires pose a limited impact for the city as a whole but can have devastating isolated impact.</p>
Civil Disturbance	<p>Civil disturbances reacting to activities in the community have not occurred in Kenmore.</p>	<p>The City encourages public participation in regulatory or other changes that would affect the citizenry so that voices can be heard before action is taken. Kenmore police are trained to recognize and respond to this type of incident should it occur.</p>	<p>No civil disturbances have been located in Kenmore.</p>
Cyber Incident	<p>Increasingly, cyberattacks are plaguing local governments. Valuable information may be held hostage or important systems corrupted.</p>	<p>City government is vulnerable to these attacks although software solutions are constantly updated and staff are trained to avoid this type of attack.</p>	<p>The City has not, to date, suffered a successful cyberattack.</p>
Hazardous Materials Incident	<p>With limited commercial facilities in the city and none of them storing large supplies of hazardous materials, the primary risk is limited to those materials being transported through Kenmore.</p>	<p>The transportation of hazardous materials on State Route 522 is the primary source and location of hazardous chemicals in the city. SR522's proximity to Lake Washington, its tributaries and the city's downtown core with higher residential density put hazardous chemicals in close proximity to high impact areas.</p>	<p>Hazardous material incidents have been limited in size, less than 50 gallons, of flammable liquids in the past 5 years, but much larger quantities are transported through the city daily.</p>
Health Incident	<p>Like most primarily-residential cities the risk of a public health emergency is limited by the lack of large public gathering spaces (stadiums, etc.)</p>	<p>The city's population has limited vulnerabilities within the community however epidemics can still interrupt normal services and negatively impact the city.</p>	<p>An epidemic that reduced the availability of staff for the city or our service providers could interrupt regular business activity.</p>
Terrorism	<p>As with any U.S. city, the possibility of a mass shooting or other terrorist attack is present in Kenmore. Minor</p>	<p>Kenmore police are trained to recognize and respond to this type of incident.</p>	<p>Kenmore police have responded to and investigated the hate graffiti incidents. The City has alerted its</p>



	instances of hate graffiti have been documented in the City.		citizens to combat hate speech. Fortunately, no terrorist attacks have occurred in the City.
Dam Failure	There is no risk of dam failure in Kenmore.	N/A	N/A

Hazard and Asset Overview Map(s)

Figure 1: Kenmore Facilities

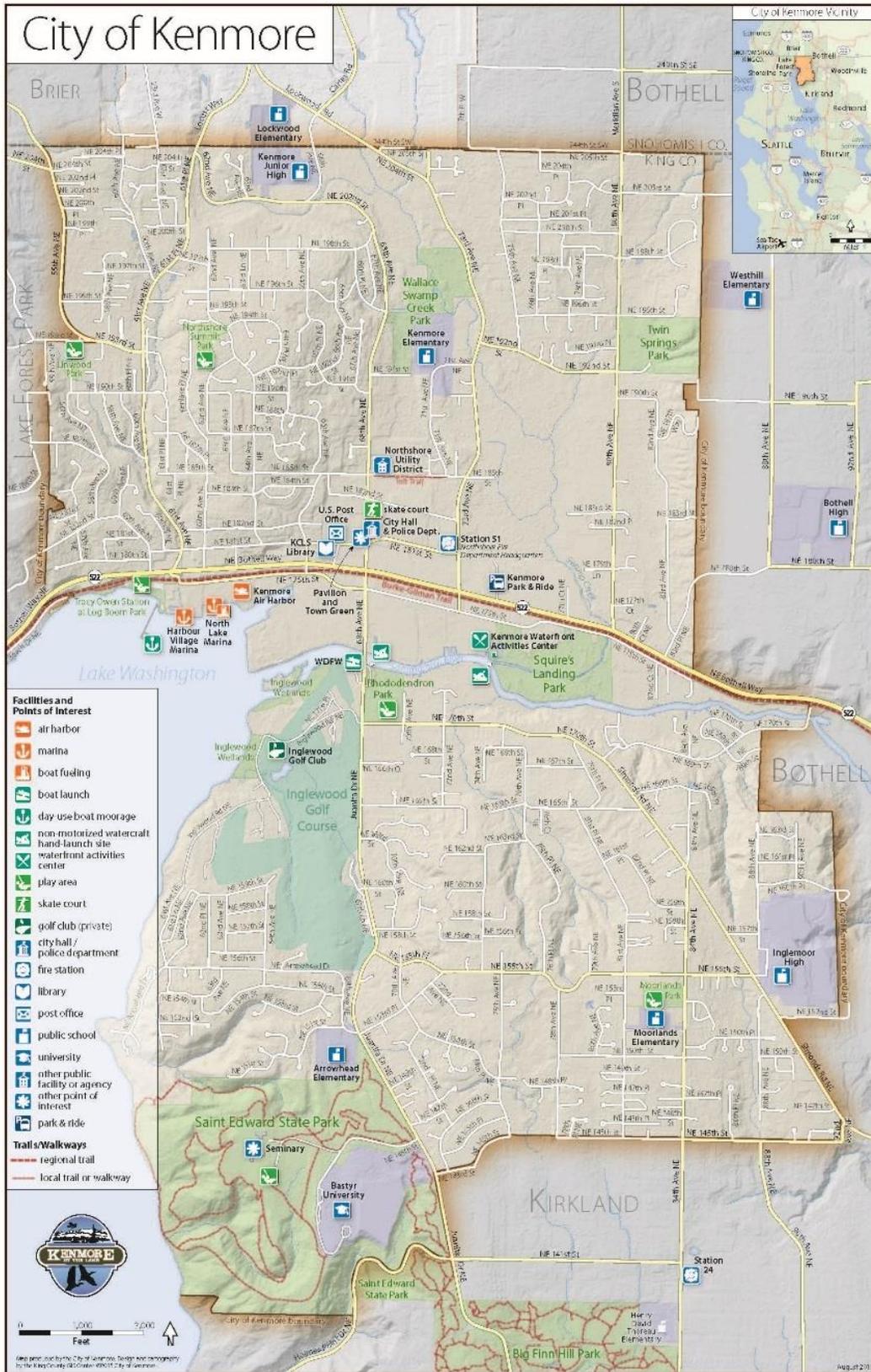


Figure 2: Geologically Hazardous Areas

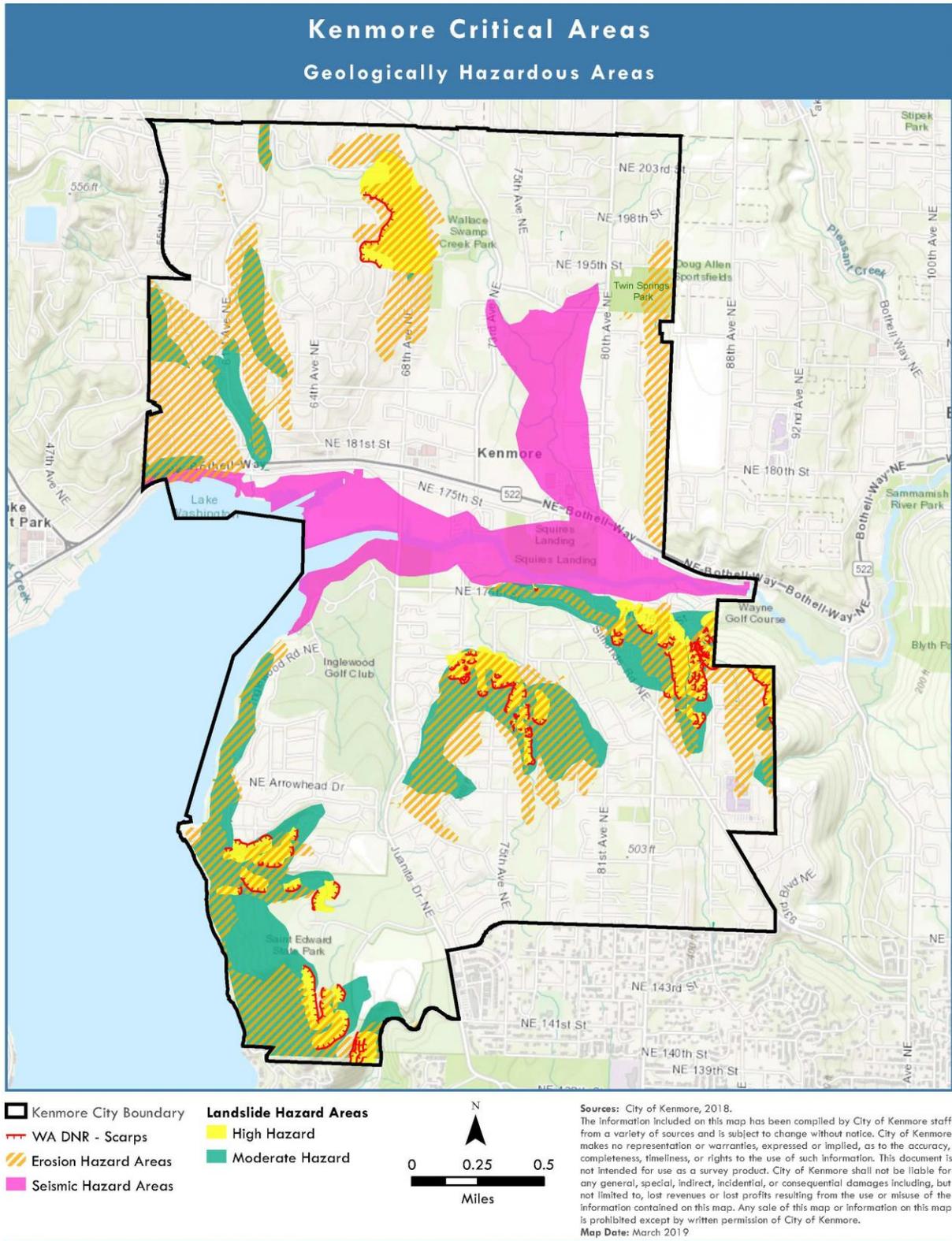
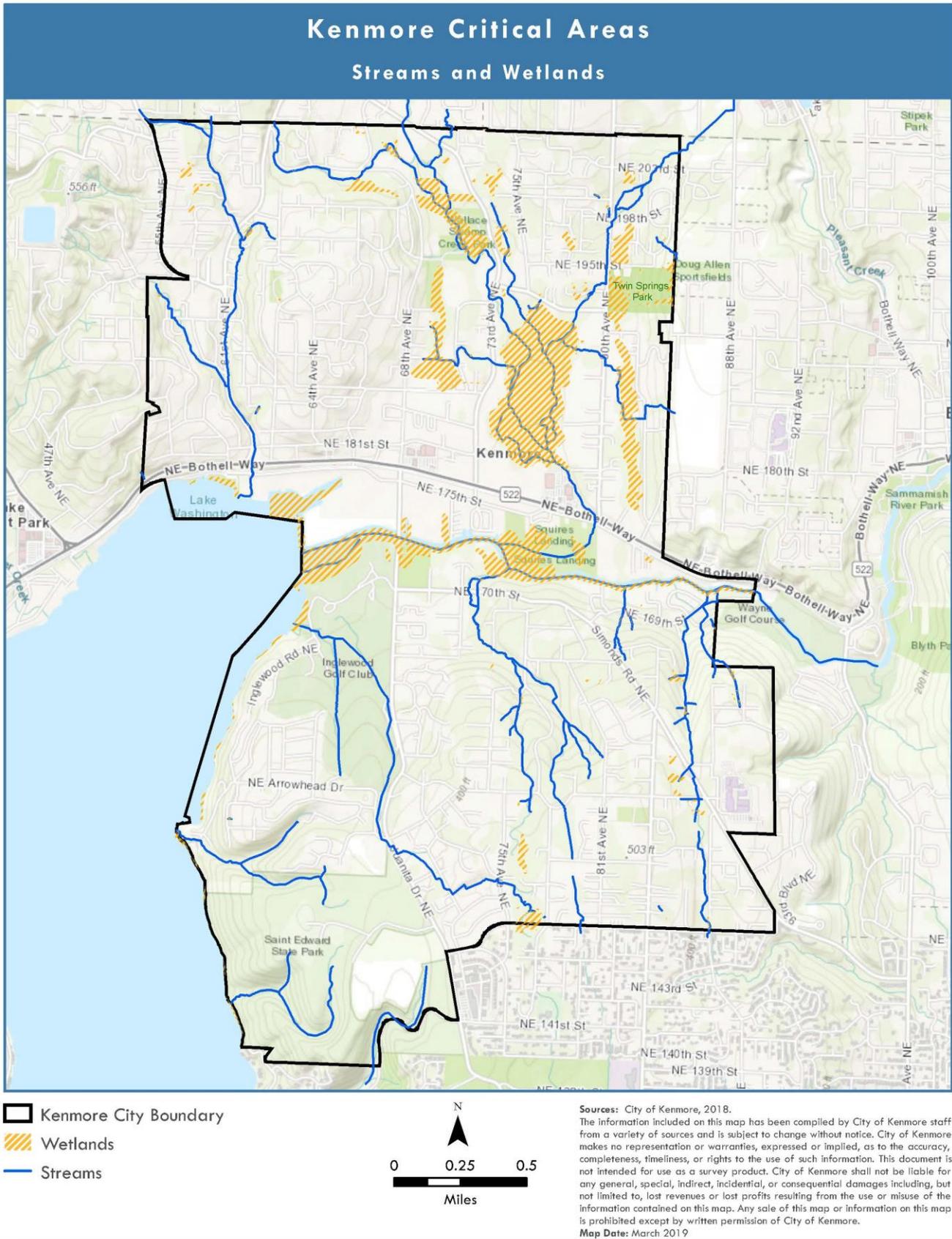


Figure 3: Streams and Wetlands





Assets at Risk (Northshore Utility District only)

ASSET	VALUE (\$)	RISK SUMMARY	VULNERABILITY SUMMARY	IMPACT SUMMARY
Inglemoor Water Transmission Main		This major water transmission main connects two halves of Northshore Utility District’s water system dissected by the Sammamish River and is essential to efficiently serve the city.	The pipeline runs through a major liquefaction area and under the Sammamish River through unstable soils and steep slopes.	The loss of the pipeline would eliminate the connection between the north and south side of the water system dramatically reducing the ability of the District to move water and serve customers.

Plan Update Process

This planning process can be divided into three steps:

1. What is valued in our community? (asset assessment)
2. What values are at risk or exposed to hazards? (risk assessment)
3. How will we protect what we value? (strategies)

The City of Kenmore has participated in the multi-jurisdictional planning process led by King County. A City hazard mitigation planning (HMP) team was established to prepare the HMP and identify possible mitigations.

The team met over several months, beginning on April 24, 2019. The first meeting was held with Derrick Hiebert, Hazard Mitigation Specialist with King County, to discuss plan expectations and review the plan template.

Additional team meetings were held on 5/23, 6/25, 8/6, 9/9, and 9/24/19 to assign responsibilities, review draft sections of the plan, discuss and prioritize mitigation strategies, and prepare for public participation in the HMP’s development.

On August 21, 2019 team members Carl Lunak and Bryan Hampson, along with Derrick Hiebert, conducted a public outreach event, including a prioritization survey of potential mitigations, at the City’s Movie Night event. On September 21, 2019, team member Carl Lunak and six volunteers staffed a table at the Northshore Safety and Emergency Preparedness Fair to provide information on the Hazard Mitigation Plan.

City of Kenmore Planning Team

NAME	TITLE	ORGANIZATION	CONTRIBUTION
Bryan Hampson	Development Services Director	City of Kenmore	Helped prepare HMP and identified mitigation strategies. Emergency Operations Manager.
Carl Lunak	Emergency Operations Manager	NEMCO	Helped prepare HMP and identified mitigation strategies. Liaison with Northshore Utility District.



Lauri Anderson	Principal Planner, Community Development	City of Kenmore	Helped prepare HMP. Prepares Comprehensive Plan and Municipal Code amendments.
Jennifer Gordon	Public Works Operations Manager	City of Kenmore	Helped prepare HMP and identified mitigation strategies. Responsible for maintenance of City facilities and infrastructure.
Richard Sawyer	Environmental Services Manager	City of Kenmore	Helped prepare HMP and identified mitigation strategies. Supervises surface-water program and participates on regional environmental committees.

Plan Update Timeline

PLANNING ACTIVITY	DATE	SUMMARY	ATTENDEES
King County HMP training	12/13/18	Reviewed plan expectations with interjurisdictional planning group.	Lauri Anderson
Initial meeting with Derrick Hiebert	4/24/19	Reviewed planning expectations and HMP template	HMP Team
King County HMP workshop	7/25/19	Mitigation strategy workshop	Carl Lunak
HMP team meetings	5/23/19 6/25/19 8/6/19 9/9/19 9/24/19	Responsibilities for completing sections of the plan were assigned. The group identified upcoming public participation opportunities. Each team member reviewed the 2015 plan and the 2019 template. Mitigation strategies were identified and prioritized.	HMP Team



Public Outreach

Public Outreach Events

EVENT	DATE	SUMMARY	ATTENDEES
Kenmore Movie Night	8/21/19	Information provided and survey taken on mitigation priorities. A raffle was held for participants to win emergency supplies.	Derrick Hiebert, Bryan Hampson and Carl Lunak
Northshore Safety and Emergency Preparedness Fair	9/21/19	Information provided on the mitigation plan and planning process.	Carl Lunak and volunteers Dawn Teel-Friedman, Asa Louis, Robin McKenzie, Gail Siani, John Cornaby and Jiles Baggett

City of Kenmore Hazard Mitigation Program

Hazard mitigation strategies were developed through a two-step process. The internal planning team met 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. Input from a community survey was used to help with prioritization.

Hazard mitigation strategies in the City of Kenmore are managed through a collaborative process involving multiple departments and the Northshore Utility District (NUD). The City’s Emergency Operations Manager, along with the Emergency Operations Manager from NEMCO (also representing NUD), monitor status of the mitigation actions and convene the annual meeting of the planning team as described below.

Plan Monitoring, Implementation, and Future Updates

King County leads the overall 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, Kenmore agrees to convene its 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

King County 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 System
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



Grant Program. Proposals from partners will be assessed according to the prioritization process identified in this plan and the county will, where possible, support those partners submitting grant proposals. This will be a key strategy to implement the plan.

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

Mitigation Plan Integration

In the past, Kenmore has used the Hazard Mitigation Plan to guide the development of additional programs and City policies including but not limited to the Comprehensive Emergency Management Plan, capital expenditure plans and the Critical Areas Ordinance. To continue that ongoing integration, the City’s Hazard Mitigation Plan will be identified as a reference document in other planning documents, including the updated Comprehensive Plan, and members of the hazard mitigation planning team will be included in the development of additional programs and policy updates.

Continued Public Participation

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

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

Hazard Mitigation Authorities, Responsibilities, and Capabilities

Plans

PLAN TITLE	RESPONSIBLE AGENCY	POINT OF CONTACT	RELATIONSHIP TO HAZARD MITIGATION PLAN
Comprehensive Plan	City of Kenmore	Lauri Anderson	Provides overall guidance to City policy and priorities
Comprehensive Emergency Management Plan, 2016	City of Kenmore	Bryan Hampson	The Hazard Mitigation Plan is an annex of the City’s CEMP
Capital Facilities Plan and Capital Improvement Program	City of Kenmore	Joanne Gregory	Provides a list of approved Capital Improvement Projects.
Surface Water Master Plan, 2015	City of Kenmore	Richard Sawyer	Provides detail on the City’s surface water assets, policies, programs and capital projects.



Northshore Utility District (NUD) Comprehensive Emergency Management Plan, 2019	Northshore Utility District	Ethan Maiefski	NUD's Hazard Mitigation Plan is also an annex to the King County Plan. NUD is a participant in NEMCO.
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Programs, Policies, and Processes

PROGRAM/POLICY	RESPONSIBLE AGENCY	POINT OF CONTACT	RELATIONSHIP TO HAZARD MITIGATION PLAN
Municipal Code, including building code, zoning and subdivision codes, critical areas rules, and shoreline regulations	City of Kenmore	Lauri Anderson	City regulations
National Flood Insurance Program	City of Kenmore	Bryan Hampson	The NFIP insures properties in and around the floodplain
State Environmental Policy Act	City of Kenmore	Bryan Hampson	Environmental analysis of proposed projects

Entities Responsible for Hazard Mitigation

AGENCY/ORGANIZATION	POINT OF CONTACT	RESPONSIBILITY(S)
City Council	Rob Karlinsey	Approval and oversight of City actions
City Manager's Office	Rob Karlinsey	Management of departmental activities
Development Services	Bryan Hampson	Permit review and Emergency Operations Manager
Community Development	Debbie Bent	Long-range policy planning and parks development
Engineering	John Vicente	Engineering
Public Works Operations	Jennifer Gordon	Public works operations
Environmental Services	Richard Sawyer	Surface water management and environmental issues
Finance and Administration	Joanne Gregory	Budget development and administration
Police	Peter Horvath	Police services and traffic control
NEMCO (Northshore Emergency Management Coalition)	Carl Lunak	Coalition of the cities of Kenmore and Lake Forest Park and the Northshore Fire Department and Northshore Utility District to address emergency preparedness and provide public education

National Flood Insurance Program

National Flood Insurance Program Compliance

What department is responsible for floodplain management in your community?	Development Services
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Who is your community's floodplain administrator? (title/position)	Bryan Hampson, Development Services Director
What is the date of adoption of your flood damage prevention ordinance?	6/17/19
When was the most recent Community Assistance Visit or Community Assistance Contact?	April 23, 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.
Does your floodplain management staff need any assistance or training to support its floodplain management program? If so, what type of training/assistance is needed?	No.
Does your community participate in the Community Rating System (CRS)? If so, what is your CRS Classification and are you seeing to improve your rating? If not, is your community interested in joining CRS?	No, therefore Kenmore is a Class 10.
How many Severe Repetitive Loss (SRL) and Repetitive Loss (RL) properties are located in your jurisdiction?	SRL:0 RL: 2-5
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?	Yes, through various grants and City funding. The City is interested in buying more flood prone properties as additions funding becomes available.

Hazard Mitigation Strategies

2015 Hazard Mitigation Strategies

This section of the plan identifies Kenmore's 2015 hazard mitigation strategies and an update on their status.

STRATEGY	DESCRIPTION	PRIORITY	STATUS
KM-1	Continue to maintain compliance and good standing under the National Flood Insurance Program. This will be accomplished through the implementation of floodplain management programs that, at a minimum, will meet the minimum requirements of the NFIP, which include the following:	High	Provide public assistance on floodplain requirements and impacts through permit counter contacts and telephone inquiries. Continue to enforce flood regulations through permitting. Adopted updated flood regulations, with FEMA's review and approval, in 2019.

	<ul style="list-style-type: none"> • Enforcement of the adopted flood damage prevention ordinance, • Participating in floodplain identification and mapping updates, and • Providing public assistance/information on floodplain requirements and impacts 		
KM-2	Consider evaluation of the City's building code enforcement program under the Building Code Effectiveness Grading Schedule, administered by the WA Survey and Rating Bureau.	High	The Northshore Fire District completed its annual full survey from the WA Survey and Rating Bureau and rated Kenmore as a Class 3.
KM-3	Integrate the hazard mitigation plan into other plans, ordinances or programs to dictate land uses within the jurisdiction.	High	The City updated its critical areas regulations and Shoreline Master Program based on new information on landslide hazard areas using new LiDAR technology.
KM-4	Consider participation in incentive based programs such as the CRS, Firewise and StormReady.	High	The City is considering these programs.
KM-5	Where appropriate, support retrofitting, purchase, or relocation of structures located in hazard-prone areas to protect structures from future damage, with properties with exposure to repetitive losses as a priority.	Medium	The City has bought some properties prone to flooding and is interested in pursuing additional buy outs as funding is available.
KM-6	Continue to support the county-wide initiatives identified in this plan.	High	The City supports the county-wide initiatives identified in this plan.
KM-7	Actively participate in the plan maintenance strategy identified in this plan	High	The City participates in the maintenance strategy identified in this plan.
KM-8	Strive to capture perishable data (i.e. high water marks, preliminary damage estimates, and damage photos) after	Medium	The City continues to capture essential data following significant events.



	significant hazard events to support future updates to the risk assessment of this plan.		
KM-9	Investigate and improve mapping of landslide hazard areas. Increase understanding of vulnerability and risk to life and property in hazard prone areas. Improve knowledge of landslide hazard areas and understanding of vulnerability and risk to life and property in hazard prone areas, particularly near 84 th Ave. NE and 88 th Ave. NE between NE 157 th Street and NE 169 th Street, and in areas of previous landslides.	Medium	Participated in the King County LiDAR mapping process and had Kenmore-specific information prepared.
KM-10	Identify and begin acquisition of City equipment necessary for safety and operations during a natural hazard event.	Medium	Emergency Operations Center Logistics Section identified potential businesses that have necessary equipment that we could acquire if needed during a natural hazard event
KM-11	Continue to facilitate and support hazard education programs, such as CERT training or providing educational materials for family disaster preparedness.	High	Formed the Northshore Emergency Management Coalition (NEMCO) with the City of Kenmore, City of Lake Forest Park, Northshore Fire District, and Northshore Utility District. Conduct monthly volunteer emergency meetings; conduct monthly Radio Amateur Civil Emergency Service meetings; conducted 2 CERT classes in 2016 and 2018; conducted Radio Technician Class; and conducted 2 citizen emergency preparedness workshops in 2018.



KM-12	Conduct non-structural retrofit activities in City facilities, such as strapping down and securing computers and other office equipment and machinery, securing shelves and heavy furniture to walls, ensuring that heavy items are not stored overhead, mounting computer servers on seismic isolation platforms, etc.	Medium	Incomplete. No longer a priority.
KM-13	Encourage reduction of nonstructural and structural earthquake hazards in homes, schools, businesses, and other government offices.	High	Website includes information on securing furniture and appliances, and other measures, under “do1thing” program.
KM-14	Identify city-owned buildings and infrastructure that require structural retrofiting.	High	Inspected all city-owned buildings and infrastructure for potential structural retrofiting. No city-owned buildings require retrofiting.
KM-15	Develop public information to educate citizens on tsunamis/seiches.	Medium	Incomplete. No longer a priority. Need information about the hazard.
KM-16	Encourage King County to develop ash fall models that are specific to the north King and south Snohomish Counties area.	Low	Incomplete. Relying on County for action.
KM-17	Increase communication, coordination, and collaboration between wildland-urban interface property owners, city planners, fire prevention crews, and city officials to address risks, existing mitigation measures, and federal assistance programs related to wildfire.	High	Communication and coordination complete for new development at Saint Edward State Park.



KM-18	Enhance public safety strategies for debris avoidance and management for natural hazards events. Implementation measures include developing and enhancing right-of-way maintenance programs, educating property owners about tree maintenance near roadways, and developing coordinated management strategies for public safety issues such as clearing debris from public and private property.	High	Provided information on City's website.
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2020 Hazard Mitigation Strategies

STRATEGY	LEAD AGENCY/POC	TIMELINE	PRIORITY
Sammamish River Bridge detour routes	City of Kenmore/ John Vicente or Tobin Bennett-Gold	2020-2025	High
Flood reduction and resiliency	City of Kenmore/ Richard Sawyer	2020-2025+	Moderate
Severe weather event debris disposal procedures	City of Kenmore/ Jennifer Gordon	2020-2025	Moderate
Inclement weather (snow and ice) procedures manual	City of Kenmore/ Jennifer Gordon	2020-2022	High
Landslide hazard area education and outreach	City of Kenmore/ Bryan Hampson	2020-2022	Moderate
Stabilization of hazardous slopes in City right-of-way	City of Kenmore/ Jennifer Gordon	2020-2025+	Moderate



Hazard Mitigation Strategy

Lead Points of Contact City Engineer Traffic Engineer	Partner Points of Contact Kenmore Chief of Police Private boat operators	Hazards Mitigated / Goals Addressed Interruption of transportation connectivity	Funding Sources and Estimated Costs City funds
Strategy Vision/Objective Prepared detour routes and development of transportation alternatives in the event of loss of transportation access across one or both 68 th Av NE Sammamish Bridges in order to mitigate negative effects of loss of transportation connectivity on effectiveness of city-wide and regional traffic operations. Effective traffic operations are necessary for emergency response and / or evacuation in addition to preserving normal transportation access as much as possible until connectivity is restored.			
Mitigation Strategy Prepare and maintain traffic detour plans, including temporary signage and signal adjustments, to redirect traffic in the event that one or both 68 th Av NE (Sammamish River) Bridges need to be closed or have collapsed. Make relevant staff and police aware of detour plans so that they can be implemented quickly in the event of a bridge closure. Contact adjacent jurisdictions on traffic impacts if needed. Work with local boat operators to ferry people back and forth across the river in the event of an emergency. One such relationship has already been established with a local tour boat company. West Sammamish bridge construction includes detours in the event of bridge closure during construction. Project will be complete in 2022. After Project is completed, a new detour plan will be prepared for the permanent state of the infrastructure.			
2-Year Objectives Detours related to West Sammamish Bridge Project have already been developed and will be made available to relevant staff and police. Establish relationships with local boat operators.	5-Year Objectives Prepare new detour routes based on permanent infrastructure and make plans available to relevant staff and police.	Long-Term Objectives Review and update detour routes and ferry opportunities and make information available to relevant staff and police.	
Implementation Plan/Actions Detour plans to be used during West Sammamish Bridge Project are already developed and in place. New detour plans will be prepared after bridge construction is complete in 2022. Expand relationships with local boat operators to provide ferry service across the Sammamish River in the event the bridge is closed.			
Performance Measures Was access to all streets preserved while detour was in effect (including streets not cut off by gridlocked traffic)? How quickly was the detour implemented (did the appropriate people have access to the detour plan)? Were road users able to clearly follow detour signing? Are agreements in place with local boat operators?			



Hazard Mitigation Strategy

Lead Points of Contact Public Works Environmental Services Manager	Partner Points of Contact Private property owners Flood control district	Hazards Mitigated / Goals Addressed Flood reduction	Funding Sources and Estimated Costs City funds, Grants
Strategy Vision/Objective Flood reduction and resiliency: Determine specific stream culvert and public drainage facility projects and priorities for flood reduction, road safety and water quality protection; remove homes and businesses from flood prone properties and restore floodplain function while simultaneously improving riparian habitat and stream health; and eliminate recurring flooding issues at known “hot-spots” by evaluating underlying causes and addressing the root issues.			
Mitigation Strategy Conduct a citywide stream culvert assessment to identify specific projects; Conduct a citywide assessment of public drainage facilities (stormwater vaults, ponds) to identify retrofit opportunities; Acquire property to restore stream corridors and floodplains and reduce flooding hazards; and Develop a list of specific projects to reduce hazards in known flash-flooding hotspots.			
2-Year Objectives <ul style="list-style-type: none"> Identify, map and document all stream bearing culverts in the City, including information on type, diameter, length, public impact and ownership. Assess public drainage facilities. Identify, map and document all potential properties for floodplain restoration and all hot-spot flooding locations. 	5-Year Objectives <ul style="list-style-type: none"> Complete conditional assessments of culverts and hydraulic modeling of built-out conditions for flow capacity and flood analysis. Prioritize replacement. Prioritize identified floodplain restoration properties for acquisition. Complete assessments of hot-spot flooding issues and prioritize based on effectiveness of solution, benefit, cost and scope of work needed. 	Long-Term Objectives Incorporate projects into on-going capital improvement program to provide funding for implementation.	
Implementation Plan/Actions Identify projects to reduce flooding. Prioritize those projects. Obtain funding. Complete projects.			
Performance Measures Flooding of private property and roadways Water quality Functioning riparian habitat			



Hazard Mitigation Strategy

Lead Points of Contact Public Works Operations Manager	Partner Points of Contact Public Works Operations Crew Allied Waste Waste Management	Hazards Mitigated / Goals Addressed Debris Removal	Funding Sources and Estimated Costs City funds
Strategy Vision/Objective Standard operating procedures for debris management after a severe weather event.			
Mitigation Strategy Make a plan for debris disposal after severe weather events or natural disasters (tree debris, other vegetation, etc.)			
2-Year Objectives Create a written document containing standard operating procedures for debris management after a severe weather event.	5-Year Objectives Develop a routine review of plan to ensure agreements are in place for the debris removal strategy. Schedule a routine debrief annually in late spring if the City experienced severe weather during that time period.	Long-Term Objectives To have an up-to-date standard operating procedures manual for debris management that is being reviewed and updated routinely.	
Implementation Plan/Actions Draft document and have it reviewed by partners. Finalize plan and provide training.			
Performance Measures Plan completion			



Hazard Mitigation Strategy

Lead Points of Contact Public Works Operations Manager	Partner Points of Contact Public Works Operations Department	Hazards Mitigated / Goals Addressed Snow & Ice Inclement Weather	Funding Sources and Estimated Costs City funds
Strategy Vision/Objective Create a standard operating procedures manual for snow and ice inclement weather.			
Mitigation Strategy Develop written snow and ice removal procedures, including priorities, for Kenmore (formerly handled by Lake Forest Park Public Works).			
2-Year Objectives Create a written document containing standard operating procedures for snow and ice weather events.	5-Year Objectives Develop a routine review of plan on an annual basis to incorporate new infrastructure and assess priority routes. Schedule a routine debrief annually in early spring if the City experienced inclement weather during that time period.	Long-Term Objectives To have an up-to-date standard operating procedures manual for snow and ice that is being reviewed and updated routinely.	
Implementation Plan/Actions The plan will be developed prior to the beginning of the 2019 winter season. The plan will layout work items that may be done in preparation for the winter season as well as procedures and priorities to be followed during the winter season.			
Performance Measures Vehicular accidents due to snow and ice conditions. Volume of requests for service.			



Hazard Mitigation Strategy

Lead Points of Contact Development Services Director	Partner Points of Contact Private property owners King County Emergency Management Insurance companies FEMA	Hazards Mitigated / Goals Addressed Landslide	Funding Sources and Estimated Costs City funds, Grants
Strategy Vision/Objective Property owners are aware of hazard and can make informed land use decisions			
Mitigation Strategy Provide education and outreach to property-owners in identified landslide hazard areas.			
2-Year Objectives Notify and educate property owners.	5-Year Objectives	Long-Term Objectives	
Implementation Plan/Actions Identify properties. Prepare educational materials. Distribute materials or discuss findings with property owners.			
Performance Measures Number of landslide hazard area property owners contacted			



Hazard Mitigation Strategy

Lead Points of Contact Public Works Operations Manager	Partner Points of Contact Public Works Engineering Public Works Environmental Services	Hazards Mitigated / Goals Addressed Stabilize hazardous slopes.	Funding Sources and Estimated Costs City funds
Strategy Vision/Objective Identify and stabilize possible hazardous slopes within the right-of-way that need to be stabilized.			
Mitigation Strategy Stabilize hazardous slopes in City right-of-way (for example, at 61 st Place and NE 150 th Street and at 66 th Avenue NE and NE 196 th St.)			
2-Year Objectives Develop a capital project for each hazardous slope identified. Design repair.	5-Year Objectives Projects identified to be added to the Capital Improvement Plan and given a budget. Create a timeline for projects to be completed.	Long-Term Objectives Complete capital projects to stabilize hazardous slopes within the right-of-way.	
Implementation Plan/Actions Develop capital projects that address the hazardous slopes, including an engineer estimate. Evaluate projects as part of the Capital Improvement Plan (CIP) Create a timeline for project completion.			
Performance Measures Hazardous slopes have been stabilized.			