City of Kenmore

City of Kenmore - 18120 68th Avenue NE - Kenmore, WA 98028
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City of Kenmore
Planning Commission Meeting Agenda

Tuesday, December 4, 2018 @ 7:00 p.m.
Kenmore City Hall
18120 68th Ave. NE, Kenmore, WA 98028

If you have any questions or to confirm agenda items prior to the meeting, or if you require special accommodations, please call Bridgit Baker at 425-398-8900. You may also stop by City Hall at 18120 68th Avenue NE, Kenmore. Planning Commission agendas are also available on our website at www.kenmorewa.gov.

1. **CALL TO ORDER**

2. **CITIZEN COMMENTS**

3. **APPROVAL OF MINUTES**

   November 6, 2018 Planning Commission Meeting Minutes

4. **AGENDA ITEMS**

   Critical Areas and Shoreline Master Program Amendments Memo
   Attachment 1 - Shoreline Regulations (part 2)
   Attachment 2 - Geo Hazards
   Attachment 2a (Corrected) - Map
   Attachment 3 - Groundwater Regulations
   Attachment 4 - Groundwater Susceptibility map

5. **ADJOURNMENT**

6. **UPCOMING MEETINGS:**
   December 18, 2018, 7:00 p.m.

City of Kenmore
Planning Commission Meeting
November 6, 2018 @ 7:00 p.m.

Planning Commission Members – In Attendance

Mark Ohrenschall, Vice Chair
Carol Baker
Scott McDonald
Mike Mulcare
Dennis Olson
Mike Vanderlinde

Consultants & Staff

Debbie Bent, Community Development Director
Lauri Anderson, Senior Planner
Tela Whiteman, Permit Specialist
Amy Summe, Shannon & Wilson
Bill Laprade, Shannon & Wilson
Eliana Rey, Spanish Interpreter

1. CALL TO ORDER

The meeting was called to order by Vice Chair Ohrenschall at 7:00 p.m.

2. CITIZEN COMMENTS

No citizens rendered comment.

3. APPROVAL OF MINUTES

Commissioner Vanderlinde motioned to approve the August 21, 2018 minutes which was seconded by Commissioner Olson. Vice Chair Ohrenschall amended the third sentence, replacing “what the City misstated” to “what the newspaper misstated”. The motion passed 6-0 with no abstentions.

Commissioner Vanderlinde motioned to approve the October 16, 2018 minutes which was seconded by Commissioner McDonald. The motion passed 6-0 with no abstentions.

3. PUBLIC HEARING

Lauri Anderson introduced the Public Hearing which covered the 2018 Comprehensive Plan Amendments addressing two topics; Mobile Home Parks (MHP) and Critical Areas Protections.

Jim Perkins, owner of 2 MHPs on 181st. He was comfortable with what he heard from the Planning Commission but then heard differences at the City Council. He feels that the "Highest and Best Use" is not happening at the MHP. The MHPs are not financially viable and will not survive preservation. The MHP homeowners in his park have not had their rents raised for some time. In his MHP there is less density and he may have to bail. He was on the committee that formed the City 20 years ago and couldn't believe what the City Council came up with.

Harry Perfater, 7002 NE 181st St #4, Kenmore, WA 98028 and has lived in Mr. Perkin's MHP for many years. He thanked the City of Kenmore for hearing the citizens. He stated that most of the residents, including himself are in low-income situations and/or disability and he won't be able to qualify for a place to live due to his credit history. People have lived in the MHP for a long time. Their investment will be gone and everyone would lose their equity.

Kylin Parks, 4515 176th SW #43, Lynnwood, WA 98037. She has been following the Planning Commission for the last year and dittos Harry's comments. She thanked the Planning Commission for their patience. She knows that this is a very difficult issue with many differences of opinions and would like to find a compromise. She feels that this process has been effective, and the City Council has formed their own opinions. She feels that the Comprehensive Plan Amendment gives temporary zoning that would provide an opportunity for homeowners to get themselves together. She also wanted to reiterate that this was a business decision that the MHP owners made. They chose not to take reserves from the rents, put them into the infrastructure and that is why the community is not viable. She feels that was a business choice and is uncertain why homeowners must suffer for a bad business decision.

4. AGENDA ITEMS

Lauri Anderson summarized the final recommendation for the Comprehensive Plan Amendments to deliver to the City Council on November 19, 2018. Commissioner McDonald motioned to shorten the Mobile Home Park preservation to 5 years which was not seconded. The motion failed. Commissioner Vanderlinde asked if the 5-year preservation comments could be brought up at the City Council Public Hearing in January. Commissioner Mulcare motioned to approve the final recommendation on the Comprehensive Plan Amendments which was seconded by Commissioner Vanderlinde. The motion passed 6-0. The Planning Commission unanimously agreed to rely on the staff to present these amendments to City Council.

Lauri Anderson, Amy Summe and Bill Laprade reviewed policy questions on critical areas and shoreline master program amendments. The first two policy questions were if the City should differentiate between levels of hazardous landslide areas (high and moderate) and prohibit development in hazardous areas or if the current

standard is sufficient to protect the public. Currently, there is no distinction in levels and development is prohibited in landslide areas unless there is a geotech report stating how the designed structure is going to be safe and will not create problems for others. Commissioner Vanderlinde motioned to direct staff to continue investigation of creating a new standard/approach for differentiating between high and moderate risk areas and report back once the additional mapping has been received. The motion was seconded by Commissioner Mulcare. The motion passed 6-0.

The Planning Commission unanimously agreed in favor to Question #3 regarding allowances for remodeling to existing homes. The Planning Commission also agreed to pursue the practicality of clustering (excluding remodeling) asked in Question #4.

The Planning Commission agreed to consider the changes by exception to the streams and fish & wildlife habitats section. They also agreed to add the word "native" fish in those sections.

5. ADJOURNMENT

Vice Chair Ohrenschall adjourned the meeting at 8:26 p.m.

_____
Planning Commission
Approved by Planning Commission on: _____

18120 68TH AVENUE NE
KENMORE, WASHINGTON 98028

MEMO

TO: Planning Commission

FROM: Debbie Bent, Community Development Director
Lauri Anderson, Senior Planner

DATE: November 29, 2018

SUBJECT: Critical Areas and Shoreline Master Program Amendments

The agenda for your December 4 discussion on the critical areas and Shoreline Master Program amendments is focused on three items: (1) the second set of shoreline regulations (see Attachment 1); (2) draft geologically hazardous area regulations (see Attachment 2); and (3) revised draft groundwater regulations (see Attachment 3), including the groundwater susceptibility map (see Attachment 4).

Significant sections in the draft shoreline regulations address permitted uses and shoreline modifications. The use table has been modified to incorporate the list of standardized uses developed for the Zoning Code.

The draft geologically hazardous area regulations follow the policy direction you provided at your November 6 meeting—dividing the landslide hazard areas into "high" landslide hazard areas and "moderate" landslide hazard areas and implementing different standards for each.

Revisions to the draft groundwater regulations are based on the groundwater susceptibility map and the significant areas of moderate and high susceptibility in the City. The revisions limit the number of projects that must obtain a hydrogeological assessment. The City's existing surface water standards already address the relationship between changed surface water flow and groundwater as a result of development.

Staff recommends that you review these amendments and discuss concerns "by exception." If you have questions prior to the meeting, please don't hesitate to contact us.

Attachments
Attachment 1: Second set of shoreline regulation amendments
Attachment 2: Proposed geologically hazardous area amendments
Attachment 3: Revised groundwater regulations
Attachment 4: Groundwater susceptibility map

ATTACHMENT 1

Title 16
SHORELINE MANAGEMENT

Chapters:

16.50 Shoreline Uses

16.55 Shoreline Modifications

16.60 Vegetation Conservation

Chapter 16.50

SHORELINE USES

Sections:

16.50.010 General shoreline uses.

16.50.020 Interpretation of shoreline use table.

16.50.030 Shoreline use table and conditions.

16.50.040 Aquaculture.

16.50.050 ~~Public boat launching facilities and marinas~~Boating facilities.

16.50.060 Public access.

16.50.070 Parks and ~~R~~recreation.

16.50.080 Utility facilities.

16.50.085 Transportation uses and facilities.

16.50.087 Parking

16.50.090 Residential uses.

16.50.100 Channel migration zone on Swamp Creek.

16.50.010 General shoreline uses.

A. All uses in the shoreline jurisdiction must comply with all City code provisions and with the Kenmore *Shoreline Master Program*. For a principal use to be permitted in the shoreline, it must be a permitted use in the underlying zone, and must be listed as a permitted or conditional use in KMC 16.50.030. This section may not authorize a land use that is not allowed by the underlying zoning, but may add restrictions or conditions or prohibit specific land uses within the shoreline jurisdiction.

B. Uses not specifically addressed in this table may be permitted as conditional uses in the shoreline jurisdiction, provided the use meets the criteria for a shoreline conditional use permit and is compatible with the underlying zoning.

C. When there is a conflict between permitted land uses, preference for shoreline uses shall first be given to *water-dependent uses*, then to *water-related uses*, then to *water-enjoyment uses*, and finally to *non-water-oriented uses*.

~~D. Uses existing as of March 30, 2012, that do not conform to these regulations may be continued subject to the provisions of this chapter.~~

16.50.020 Interpretation of shoreline use table.

A. The shoreline use table in KMC 16.50.030 indicates whether a specific use is allowed within each of the *shoreline environment*~~s~~ designations and whether it is permitted outright or allowed only as a shoreline conditional use. The process through which a use or development may be permitted is defined under procedures in Chapter 16.75 KMC.

B. In the table, *shoreline environment*~~s~~ designations are listed at the top of each column and the specific uses are listed along the left-hand side of each horizontal row. The cell at the intersection of a column and a row indicates whether a use may be allowed in a specific *shoreline environment* designation and whether additional use criteria apply. The table should be interpreted as follows:

1. If the letter “P” appears in the box at the intersection of the column and the row, the use may be permitted within the *shoreline environment* designation if the underlying zoning also allows the use.

2. If the letter “C” appears in the box at the intersection of the column and the row, the use may be allowed within the *shoreline environment* designation subject to the shoreline conditional use review procedures specified in Chapter 16.75 KMC, and only if the underlying zoning allows the use.

3. If the letter “X” appears in the box at the intersection of the column and the row, the use is prohibited in that *shoreline environment* designation. These uses may not be authorized through a conditional use, shoreline exemption, or shoreline variance.

4. If the letter “U” appears in the box at the intersection of the column and the row, the use is subject to the same review process and standards as the immediately adjacent upland *shoreline environment* designation.

45. If a number appears after the letter "P," or "C" or "U" in the box at the intersection of the column and the row, additional use criteria apply. The use may be permitted subject to the appropriate review process in this section only if the specific use criteria indicated with the corresponding number immediately following the table are satisfied, and only if the underlying zoning allows the use. If more than one number appears at the intersection of the column and row, both numbers apply.

~~5. If more than one letter-number combination appears in the box at the intersection of the column and the row, the use is allowed within that *shoreline environment* subject to different sets of limitations or criteria depending on the review process indicated by the letter, the specific development criteria indicated in the development condition with the corresponding number immediately following the table, and only if KMC Title 18 allows the use.~~

6. Definitions of italicized uses in the table may be found in Chapter 18.20 KMC.

16.50.030 Shoreline use table and conditions.

A. Shoreline Use Table.

Shoreline Use Table

KEY **P –** Permitted Use **C –** Shoreline Conditional Use **X** – Prohibited Use **U** – Same use allowances as in adjacent upland Environment	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
Adult entertainment business	P2	X	X	X	X
Air transportation service	X	X	X	X	C14
Ambulatory surgery center	X	X	X	X	X
Animal kennel/shelter	X	X	X	X	X

ATTACHMENT 1

Shoreline Use Table

KEY **P –** Permitted Use **C –** Shoreline Conditional Use **X** – Prohibited Use **U** – Same use allowances as in adjacent upland Environment	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
~~Recreational/cultural~~*Arts, entertainment, indoor*	P2~~5~~	~~P6~~X	P~~6~~2	~~P7~~X	~~C5~~X
Arts, entertainment, outdoor	P2	X	P2	P6	X
Auction house	X	X	X	X	X
Automotive sales and service, marine	P2	X	X	X	U3
Automotive sales and service, non-marine	X	X	X	X	X
Business service, intensive	X	X	X	X	X
Business service~~s~~, standard	P2~~, X2~~	X	P2~~, 3, X2~~	X	~~C2~~X
Cemetery, columbarium or mausoleum	X	X	X	X	X
College/university	P3	P3	P3	X	U
Community residential facility	P2	P	X	X	X
Construction and trade	X	X	X	X	X
Day-care	P2	X	P2	X	X
Eating and drinking place	P2	X	P2	X	X
Educational service	P2	P2	P2	X	X
Family child-care home	X	P	P	C	X
~~Golf course~~	~~X~~	~~X~~	~~C~~	~~X~~	~~X~~
~~Government services~~*Fire or police facility*	P4~~3~~	P4~~3~~	~~P~~C4~~3~~	~~P4~~X	~~C4~~U

4.

ATTACHMENT 1

Shoreline Use Table

KEY **P –** Permitted Use **C –** Shoreline Conditional Use **X** – Prohibited Use **U** – Same use allowances as in adjacent upland Environment	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
Funeral home/crematory	X	X	X	X	X
Health care and social assistance	P2, 15	X	P2,15	X	X
Hospital	X	X	X	X	X
Laboratory	P2	X	X	X	X
Manufacturing, ~~uses~~*heavy*	~~P2~~X	X	X	X	X
Manufacturing, light	P2	X	C2	X	X
Marijuana business	P2	X	P2	X	X
Marijuana cooperative	X	X	X	X	X
~~Marina (recreational boat moorage)~~	~~P8~~	~~X~~	~~P~~	~~X~~	~~P~~
Mobile food service	P2	X	P2	X	P~~4~~3
~~Mobile home park~~*Manufactured housing community*	X	C16	X	X	X
Multiple-family d~~D~~*welling*~~, multiple-family~~. See also KMC Section 16.50.090.	P2	P	P2	X	X
Office	P2	X	P2	X	X
Park. See also KMC Section 16.50.070.	P4	P5	P5	P6	P3
~~General services~~	~~P2, X2~~	~~X~~	~~P2, 3, X2~~	~~X~~	~~C2~~
Personal service	P2	X	P2	X	X

4.

ATTACHMENT 1

Shoreline Use Table

KEY **P –** Permitted Use **C –** Shoreline Conditional Use **X** – Prohibited Use **U** – Same use allowances as in adjacent upland Environment	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
Principal use parking	X	X	X	X	X
Public boat launch	P	X	P,C9	X	P
Recreational facility, indoor	P2	X	P2	X	X
Recreational facility, outdoor. See also KMC Sections 16.50.050, 16.50.070, and 16.55.050.	P4,17	P5,17	P5,17	P6	P3,4
Regional land use, except for airport, ferry terminal, and highway and street, which are described below. See also KMC Section 16.50.085.	C7	X	X	X	C3
Airport/heliport or helistop	C, X1714	X	X	X	C, X1714
Ferry terminal	C	X	X	X	C
Highway and street, except for in-water uses	C1110	C1110	C1110,12	C1110,12	C1112
In-water and overwater highway and street facilities	X	C11, 14	C11, 14	C11, 14	C11, 14
Expanded highway and street	P18	P18	P18	C18	C18
Wastewater treatment facility and municipal water production, except for in-water uses	C8, 12	C8, 12	X	X	X
In-water wastewater	X	C12	C12	C12	C12

4.

Shoreline Use Table

KEY **P –** Permitted Use **C –** Shoreline Conditional Use **X** – Prohibited Use **U** – Same use allowances as in adjacent upland Environment	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
~~treatment facility, in-water municipal water production facility~~					
~~Regional stormwater management facilities~~	~~P13~~	~~P13~~	~~P13~~	~~P13~~	~~X~~
Religious institution	P2	X	P2	X	X
~~*Mining*~~*Resource land use*, except for *aquaculture*, which is described below:	X	X	X	X	X
Aquaculture ~~uses~~. See also KMC Section 16.50.040.	X	X	X	X	C1
~~In-water fish and wildlife management, except *aquaculture*~~	~~X~~	~~C~~	~~C~~	~~C~~	~~C~~
Retail sales	P2~~, X2~~	X	P2~~, 3, X2~~	X	~~C2~~X
Retail sales, bulk	X	X	C2	X	X
Secure facility	X	X	X	X	X
~~Signs~~	~~P15~~	~~P15~~	~~P15~~	~~P15~~	~~P15~~
Single detached d~~D~~*welling unit*~~s, single detached~~. See also KMC 16.50.090.	X	P	P	C	P~~9~~10
~~Commuter~~*Standalone parking*. See also KMC Section 16.50.087.	C~~16~~13	X	X	X	X
~~Group residences~~*Supportive living facility*	P2	P	P2	~~C~~X	X

4.

Shoreline Use Table

KEY **P –** Permitted Use **C –** Shoreline Conditional Use **X** – Prohibited Use **U** – Same use allowances as in adjacent upland Environment	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
Temporary lodging	P2	X	X	X	X
Transportation. See also KMC Section 16.50.085.	C2	X	X	X	X
Utility facility~~, except for in-water uses~~. See also KMC Section 16.50.080.	P~~13~~11	P~~13~~11	P~~13~~11	P~~13~~11	~~X~~P3,11
~~In-water utility facilities~~	~~X~~	~~C13~~	~~C13~~	~~C13~~	~~C13~~
Vehicle or equipment rental	X	X	P3,18	X	P3,18
Vehicle refueling station	P2	X	X	X	C3
Warehousing	X	X	X	X	X
Wholesale trade	P2, 3	X	X	X	X
~~**Aquaculture**~~					
~~**Commercial Development**~~					
~~**Government Services**~~					
~~**Manufacturing**~~					
~~**Park/Recreation**~~					
~~**Residential Development**~~					
~~Accessory uses~~	~~P~~	~~P~~	~~P~~	~~C~~	~~X~~

Shoreline Use Table

KEY **P –** Permitted Use **C –** Shoreline Conditional Use **X** – Prohibited Use **U** – Same use allowances as in adjacent upland Environment	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
~~**Regional Land Uses**~~					
~~**Utilities**~~					
~~**In-Water Structural Uses**~~					
~~**Signs**~~					

B. Shoreline Use Criteria (Footnotes to Shoreline Use Table in Subsection A of This Section).

1. *Aquaculture* may be allowed only in Lake Washington and only under the following conditions:

a. *Aquaculture* operations are located at least 500 feet from the Shoreline Residential and Downtown Waterfront Environments.

b. *Aquaculture* operations waterward of the Natural Environment and Urban Conservancy Environment are limited to activities that do not require structures, facilities or mechanized harvest practices.

2. *Water-dependent* and *water-related* ~~commercial and manufacturing~~ *uses* shall be permitted. *Public access* improvements consistent with this chapter are required for all ~~commercial and manufacturing~~ uses, unless precluded by public safety considerations. Non-*water-dependent* and non-*water-related* ~~residential, commercial, and manufacturing~~ *uses* shall be permitted only if the use meets the standards of subsections (a), (b), (c) and (d) below:

a. The development is:

(1) Part of a mixed use development that includes a *water-dependent use* and in which at least 50 percent of the land area within the shoreline jurisdiction on the project site is in a *water-dependent use* or *water-related use* (including uses accessory to a *water-dependent use* that are fully incidental and subordinate to the *water-dependent use*), dedicated *public access*, or substantial shoreline habitat enhancement consistent with KMC 16.60.010; or

(2) A new or expanding development in a commercial zone along the Swamp Creek shoreline north of Northeast Bothell Way, where the existing development does not conform with current stream buffer provisions of ~~the Kenmore SMP~~KMC Chapter 18.55 and where the proposed development would substantially increase the width and enhance the habitat quality of the buffer along Swamp Creek;

b. The *non-water-oriented uses* are located on land; and

c. The development provides a significant public benefit to help achieve any of the following shoreline element goals:

(1) Economic development for uses that are *water-dependent*;

(2) *Public access*;

(3) *Water-oriented* recreation;

(4) Multimodal, *water-dependent* transportation circulation;

(5) Conservation or *restoration* of *critical areas*, scenic vistas, or fish and wildlife habitat; or

(6) Preservation of historic properties;

d. ~~The development does not include the following uses, which are prohibited in the shoreline: funeral home/crematory; veterinary clinic; cemetery/columbarium/mausoleum; automotive repair; automotive services; stable/kennel/cattery; hospital; outdoor advertising service; miscellaneous equipment rental; automotive rental and leasing; gasoline service stations; fuel dealers; auction houses; livestock sales; amusement park; drive-in theater; public agency or~~

~~utility yard; and propane/compressed natural gas/liquefied natural gas storage tanks serving multiple lots or uses from which fuel is distributed directly to individual users.~~

~~3. New commercial uses may be permitted only if allowed in the underlying zoning, and if *public access* is provided and the project includes ecological enhancement consistent with KMC 16.60.010.~~ Existing non-*water-dependent* ~~commercial~~ *uses* may be expanded, provided the expansion complies with all development standards and the project includes ecological enhancement consistent with KMC 16.60.010.

~~4~~3. Only the *water-dependent* portion of the use shall be allowed in the *shoreline environment*~~, except as provided in this section for utility uses~~.

~~5~~4. In the Downtown Waterfront ~~and Aquatic~~ Environment~~s~~, *water-oriented* recreational uses including parks and *public access* trails and facilities may be allowed together with accessory recreation facilities that provide water enjoyment for substantial numbers of persons.~~; provided, that in the Downtown Waterfront minor non-water-oriented accessory uses such as children's play equipment, picnic tables, or outdoor exercise course equipment may also be allowed if they meet the other requirements of this chapter.~~ All other recreational uses shall be prohibited.

~~6~~5. In Urban Conservancy and Shoreline Residential Environments, parks, ~~and~~ trails and *boating facilities* shall be allowed. Golf course shall be a conditional use in the Urban Conservancy Environment. All other recreational uses shall be prohibited.

~~7~~6. In the Natural Environment, *water-oriented* passive and low-impact ~~recreational~~ uses, including public access trails, shall be allowed. All other outdoor arts, entertainment or recreational uses shall be prohibited.

~~8~~7. Wastewater treatment facilities~~,~~ and municipal water production uses, except for in-water uses, shall be allowed only on Lake Washington *shorelines*~~. The listed wastewater treatment facilities, municipal water production facilities, and *marinas*~~ and are prohibited on *shorelines* of the Sammamish River and Swamp Creek.

~~9. A boat launch that accommodates motorized vehicles for launching vessels is a conditional use in the Urban Conservancy Environment. Facilities for hand launching of nonmotorized vessels may be allowed as permitted uses.~~

~~10~~9. New overwater residences, including *floating homes* and *on-water residences*, are prohibited except for *live-aboards*. They may be allowed; provided, that:

a. They are for single-family use only;

b. They are located in a *marina* that provides shower and toilet facilities on land and there are no sewage discharges to the water;

c. *Live-aboards* do not exceed 10 percent of the total slips in the *marina*;

d. They are owner-occupied vessels; and

e. There are on-shore support services in proximity to the *live-aboards*.

~~11~~10. New highway and street construction is allowed only if:

a. There is no *feasible* alternate location;

b. Pedestrian, bicycle and public transport needs are addressed; and

c. When located in the Natural Environment, the use is low-intensity transportation infrastructure~~; parking facilities are prohibited in the Natural Environment unless supporting a *water-dependent use*~~.

~~12. The water-dependent and in-water portions of wastewater treatment and municipal water production facilities may be allowed as a conditional use.~~

~~13~~11. Utility facilities may be located within the shoreline jurisdiction if there is no *feasible* alternate location, the alternative would result in unreasonable and disproportionate cost, or the facility is necessary to serve adjacent shoreline uses. In no case are propane/compressed natural gas/liquefied natural gas storage tanks serving multiple lots or uses from which fuel is distributed directly to individual users permitted.

~~14~~12. Highway and street infrastructure that must be located in water or over water, such as bridges and bridge supports, may be permitted; provided, that the priorities of the Kenmore shoreline *restoration* plan are considered in designing mitigation for impacts from the project.

~~15. Signs may be permitted subject to the provisions of the underlying zoning and provided:~~

~~a. Signs shall not be erected nor painted on trees, rocks or other natural features.~~

~~b. Glare from artificial lighting of signs shall be shielded or directed away from adjacent properties and the water.~~

~~c. Signs waterward of the ordinary high water mark adjacent to the Downtown Waterfront Environment shall be permitted only to the extent necessary for the operation of a permitted water-dependent use, provided no such sign shall be larger than five square feet.~~

~~d. In the Shoreline Residential, Urban Conservancy and Natural Environments, signs are not allowed except for signs of not more than five square feet within public parks or trails.~~

~~e. Signs to protect public safety or prevent trespass may be allowed and should be limited in size and number to the maximum extent practical.~~

~~16~~13. Commuter parking ~~may~~ only, and only ~~be allowed~~ if it is designed to serve a passenger ferry system.

~~17~~14. Helistops and heliports are prohibited in all environments.

15. Veterinary clinics are prohibited in the *shoreline environment*.

16. Except for manufactured housing communities existing as of (date of ordinance), which are permitted outright.

17. *Marinas* are prohibited on *shorelines* of the Sammamish River and Swamp Creek.

18. Only when accessory to a park or recreational facility and related to water access for the public.

C. Accessory Uses.

~~1. Any principal use permitted in a specific shoreline environment either outright or as a special use or conditional use shall also be permitted as an accessory use outright or as a conditional use.~~

~~21~~. ~~Uses~~Conditional or prohibited ~~as principal~~ uses ~~but customarily incidental to a use permitted in a shoreline environment~~ may be permitted as *accessory uses* only if clearly incidental and necessary for the operation of a permitted principal use ~~unless expressly permitted or prohibited as accessory uses~~. ~~Examples of accessory uses include parking, offices, and outdoor storage areas.~~ For purposes of this section, ~~landfill, water-based airports~~air transportation service~~,~~ ~~heliports and helistops~~ shall not be considered to be accessory to a principal use and shall only be permitted as provided in the applicable *shoreline environment*.

~~32~~. Unless specifically stated otherwise in the regulations for the applicable environment, *accessory uses* that are non-*water-dependent* and non-*water-related*, even if accessory to *water-dependent* or

water-related uses, shall not be permitted over water ~~according to subsection A of this section only~~ ~~if~~unless either:

a. The over-water location is necessary for the operation of the *water-dependent* or *water-related use*; or

b. The lot has a depth of less than 50 feet of dry land.

~~4~~3. Accessory ~~P~~parking shall not be permitted over water unless it is accessory to a water-dependent or *water-related use* located on a lot with a depth of less than 50 feet of dry land and the director determines that adequate on-site or off-site dry land parking within 800 feet is not reasonably available.

~~5~~4. Piers, floats, pilings, breakwaters, drydocks and similar accessory structures for moorage shall be permitted as accessory to permitted uses subject to the development standards unless specifically prohibited in the applicable *shoreline environment*.

~~6~~5. *Accessory uses* shall be located on the same lot as the principal use; provided, that when the *accessory use* is also permitted as a principal use in the *shoreline environment* applicable to an adjacent lot, the *accessory use* may be located on that adjacent lot.

6. KMC Section 16.50.090 contains additional standards for residential accessory uses.

16.50.040 Aquaculture.

A. Any structure used for *aquaculture* that is placed waterward of the *ordinary high water mark* shall be placed so as not to:

1. Be a significant hazard to navigation;

2. Cause significant damage to neighboring properties;

3. Be a significant hazard to divers and boaters who may frequent the area.

B. Any byproducts of the aquatic resources facility which are discharged into the water shall not degrade the quality of the recipient water body.

C. *Aquaculture* shall be installed with minimum disturbance to banks and channels and shall not cause extensive erosion or accretion along adjacent *shorelines*.

D. *Aquaculture* facilities should be designed and located so as not to spread disease to native aquatic life, establish new nonnative species which cause significant ecological impacts, or significantly impact the aesthetic qualities of the shoreline.

16.50.050 ~~Public boat launching facilities and marinas~~Boating facilities.

~~Public boat launching~~*Boating facilities* ~~and marinas, including docks serving more than four single-family residences,~~ shall meet the following standards:

A. The facility shall be designed and operated so that there is *no net loss* of *ecological function* in the shoreline~~. Where the facility is developed in conjunction with *restoration* of like-habitat areas, improvements in one area may be applied to mitigate impacts that would result from new facilities~~;

B. The streets serving the proposed facility must be adequate to accommodate traffic generated by such a facility safely and conveniently;

C. The facility shall provide adequate parking in accordance with underlying zoning requirements. Long-term parking areas shall be located away from the water. Short-term loading areas, however, may be located near berthing areas;

D. ~~The *marina*~~All *boating facilities* shall be sited and designed to protect rights of navigation;

E. ~~The~~A *marina* must have provisions available for cleanup of accidental spills of contaminants;

F. Lavatory facilities connected to a sanitary sewer and adequate to serve the *marina* shall be provided;

G. Self-service sewage pumpout facilities or the best available method of disposing of sewage wastes and appropriate disposal facilities for bilge wastes shall be provided at *marinas* having in excess of 3,500 lineal feet of moorage or slips large enough to accommodate boats larger than 20 feet in length, and shall be located so as to be conveniently available to all boats. An appropriate disposal facility for removal of bilge wastes shall be either a vacuum apparatus, or oil-absorbent materials and waste receptacles;

H. Untreated sewage shall not be discharged into the water at any time. Treated sewage shall not be discharged while boats are moored;

I. *Public access* shall be provided in accordance with KMC 16.50.060;

J. The design shall be compatible with adjacent development;

K. Covered moorage may only be permitted for vessel repair facilities; and

L. Extended moorage on waters of the State without a lease or permission is prohibited.

16.50.060 Public access.

Public access shall be required for public projects and *development* on public lands (KMC 16.45.010(B)(16)), commercial and light manufacturing uses (KMC 16.50.030(B)(2)), *boating facilities* ~~and marinas~~ (KMC 16.50.050), multifamily development (KMC 16.50.090(A)(1)), and land divisions of more than four lots (KMC 16.50.090(A)(2)). For *development* on private property, *public access* shall be required when such *development* would either generate or increase demand for *public access* and/or would impair existing legal access opportunities or rights.

A. The City adopts the following policies and plans as collectively constituting a shoreline public access plan for Kenmore:

1. Comprehensive Plan Downtown Sub-Element

2. Comprehensive Plan Transportation Element

3. Kenmore Parks, Recreation, and Open Space Plan

4. Other plans meeting the requirements of WAC 173-26-221(4) and developed through an open public process as provided in WAC 173-26-201(3)(b)(i).

B. Where *public access* is required, an applicant shall:

1. Seek to provide physical *public access* consistent with the shoreline public access plan;

~~A~~C. Where *public access* is required, it shall:

1. Connect to other public and private *public access* and recreation facilities on adjacent parcels along Lake Washington and the Sammamish River *shorelines* whenever *feasible*;

2. Be sited to ensure public safety;

3. Be open to the general public and accessible directly from a public right-of-way or by an easement granted to the City for *public access*;

4. Enhance access and enjoyment of the shoreline and provide features in scale with the development such as, but not limited to:

a. View points;

b. Places to congregate in proportion to the scale of the development;

c. Benches and picnic tables;

d. Beach or water access for boats; and

e. Pathways for pedestrians and bicycles.

~~B~~D. Where *public access* is required, the area dedicated and improved for *public access* shall be roughly proportional to the scale and character of the proposed development and its impacts.

~~C. Where public access is required, the director shall prepare written findings demonstrating that the conditions imposed are consistent with the principles of nexus and rough proportionality, the Act and all relevant constitutional and other legal limits on regulation of private property.~~

~~D~~E. *Public access* improvements shall be designed to be compatible with the purpose and intent of the *shoreline environment* in which they are constructed.

~~E. Trails and other *public access* improvements are subject to the standards for recreational uses in KMC 16.65.020 and the vegetation management standards in KMC 16.60.020(B).~~

F. The provisions of this section do not apply to the following:

1. Short plats of four or fewer lots; or

2. Where *public access* is demonstrated to be infeasible due to reasons of incompatible uses, safety, security, or impact to the *shoreline environment*.~~; or~~ Where physical *public access* is not feasible, opportunities for visual access or other approaches to enhance *public access* to the shoreline, shall be considered by the *applicant*. Alternative *public access* proposals shall be reviewed and approved by the *city manager*.

~~3. Where constitutional or other legal limitations apply.~~

16.50.070 Parks and ~~R~~recreation.

A. *Recreational development* in all environments must meet the following standards:

1. The construction of swimming facilities, *docks*, *piers*, moorage~~s,~~ buoys, *floats*, and launching facilities waterward of the *ordinary high water mark* shall be governed by the regulations relating to *docks*, *piers*, moorage~~,~~ buoys, *floats*, or launching facility construction in KMC 16.55.050.

2. Swimming areas shall be separated from boat launch areas and *marinas*, to the maximum extent practical.

3. New or expanded swimming facilities shall only be permitted if there is an ongoing water quality testing program guided by a monitoring plan approved by the ~~director~~*city manager* to ensure public safety.

4. *Public access* trails within the shoreline shall be regulated by the provisions of KMC 16.50.060 and Chapter 18.55 KMC.

B. In the Natural Environment, recreational uses shall meet the following standards:

1. Vehicular access, parking and restrooms should be located outside the shoreline jurisdiction; if infeasible to locate outside of the shoreline jurisdiction, such facilities shall be located as far from the shoreline as is *feasible*;

2. Trails should be designed primarily for pedestrian access, including access by wheelchair where appropriate, and should be no ~~larger~~wider than is necessary to accommodate expected pedestrian traffic;

3. Removal of vegetation for recreational uses shall be the minimum necessary to provide pedestrian access and limited visual access to the shoreline;

4. Public contact with unique and fragile areas shall be permitted where possible without destroying the natural character of the area; and

5. Viewing, studying, and recording water and nature may be accommodated by platforms, benches or shelters, consistent with public safety and security.

C. To simplify the future review of maintenance activities that are or will be ongoing in association with new or existing public parks and recreation facilities, the *city manager* may develop and review five-year park and recreation maintenance plans addressing public park and recreation facility operations and

maintenance, use of best management practices, and other measures to assure no net loss of shoreline ecological function.

The park and recreation maintenance plan shall contain, as applicable:

1. A description of proposed maintenance activities, including the type, methods and frequency of maintenance activities;

2. Best management practices for maintenance activities;

3. A description of in-stream or in-lake habitat protection measures;

4. A description of riparian and wetland protection measures;

5. A description of site-appropriate water use management activities, including use of less water-dependent landscaping, maximizing the efficiency of the water application system, and reducing the area irrigated;

6. A description of stormwater management practices to treat stormwater runoff to reduce both water quantity and water quality impacts;

7. A description of erosion and sediment control practices that prevent off-site movement of sediment from stored soils and potential surface erosion areas;

8. A description of re-vegetation or restoration activities following maintenance; and

9. A description of chemical and nutrient use and containment practices that demonstrate minimization of overall inputs of these contaminants, restrict the type of inputs, and develop an acceptable method of application through a comprehensive management program, such as Integrated Pest Management (IPM).

10. Specific performance standards for subsections 3 through 9 above, as applicable, and corrective actions that will be implemented if the performance standard(s) is not met.

16.50.080 Utility facilities.

The following standards apply to utility uses within the *shoreline environment*:

A. Stormwater and sewage outfalls may be permitted in *shoreline environments* if upland treatment and infiltration to groundwater, streams or *wetlands* is not *feasible* per WAC 173-26-020 and there is no impact on salmon spawning, rearing or migrat~~ory~~ion habitat;

B. Water intakes shall not be permitted near fish spawning, migrat~~ory~~ion, or rearing areas;

C. Water intakes shall comply with Washington Department of Fish and Wildlife fish screening criteria, and to the maximum extent practical, intakes shall be placed at least 30 feet waterward of the *ordinary high water mark*;

D. Cable crossings for telecommunications and power lines and pipelines for oil, gas, water and other utilities shall:

1. Use the best available technology to protect health, safety, and the environment;

2. Be routed through sites that are already free of vegetation, such as existing roadways, or attached to existing bridges, to the greatest extent *feasible*;

3. Avoid critical aquatic habitat to the greatest extent *feasible*;

4. If crossing beneath a streambed, utilities shall be designed to avoid streambed mobilization and adverse impacts on groundwater flow, be placed in a sleeve or conduit that allows replacement without need for additional excavation, and return grades to existing or better condition that provides for normal floodwater flow; and

5. Provide mitigation for impacts to shoreline *ecological functions*.

E. The *city manager* may approve a multi-year plan for maintenance or repair activities for utility facilities that establishes best management practices or protocols to ensure no-net-loss of shoreline ecological function. Maintenance or repair management plans shall address the following:

1. A description of proposed maintenance activities, including the type, methods and frequency of maintenance or repair activities;

2. Best management practices for maintenance or repair activities;

3. A description of in-stream or in-lake habitat protection measures;

4. A description of riparian and wetland protection measures;

5. A description of stormwater management practices to treat stormwater runoff to reduce both water quantity and water quality impacts;

6. A description of erosion and sediment control practices that prevent off-site movement of sediment;

7. A description of re-vegetation or restoration activities following maintenance or repair; and

8. A description of chemical and nutrient use and containment practices that demonstrate minimization of overall inputs of these contaminants, restrict the type of inputs, and develop an acceptable method of application through a comprehensive management program, such as Integrated Pest Management (IPM).

10. Specific performance standards for subsections 3 through 8 above, as applicable, and corrective actions that will be implemented if the performance standard(s) is not met.

16.50.085 Transportation uses and facilities.

A. Non-water-dependent transportation uses shall be located as far landward as possible.

~~E~~B. Transportation ~~uses~~facilities shall employ mitigation sequencing specified in Chapter 18.55 KMC to avoid and mitigate for impacts to *critical areas*.

~~B~~C. Bridges, when necessary, should span open water and *floodways*.

~~C~~D. Roadways and bridges should be designed to avoid placement of *fill* or structures that would restrict *floodplain* capacity or limit channel migration. ~~If transportation facilities are anticipated to impact *floodplains* or *channel migration zones*, mitigation sequencing as specified in Chapter 18.55 KMC shall be employed to avoid and mitigate for impacts.~~

~~D~~E. Construction of private bridges should be minimized, and shared access should be required whenever *feasible*, including when subdivision would create new lots requiring access by bridge.

F. Expansion of existing highways and streets in the *shoreline jurisdiction* shall be permitted only if the following criteria are met:

1. The expansion is included in the Transportation Element of the Comprehensive Plan, Neighborhood Transportation Plan, Transportation Improvement Program, ADA Compliance Plan, or Target Zero strategy implementation.

2. The expansion does not require acquisition of private property that was unanticipated in the plans under a., above.

3. The expansion is located with existing rights-of-way or other City-managed land.

4. Minimum alteration and/or *fill* is needed to construct such facilities to meet established safety standards and all applicable SMP standards can be met.

5. Disturbed areas are restored immediately after the use of construction equipment.

If these criteria cannot be satisfied, expansion may only be permitted after approval of a conditional use permit.

~~F. Lighting from parking areas shall be screened from illuminating fish and wildlife habitat areas and their buffers; provided, that lighting necessary for safe operation of a permitted *water-dependent use* may be allowed, but should be screened to the extent possible from illuminating fish and wildlife habitat areas and their buffers.~~

16.50.087 Parking

A. Parking is prohibited in the Natural Environment unless supporting a water-dependent use.

B. Parking should be located outside the shoreline jurisdiction; if infeasible to locate outside of the shoreline jurisdiction, such facilities shall be located as far from the shoreline as is feasible.

C. Lighting from parking areas shall be screened from illuminating fish and wildlife habitat areas and their buffers; provided, that lighting necessary for safe operation of a permitted *water-dependent use* may be allowed, but should be screened to the extent possible from illuminating fish and wildlife habitat areas and their buffers.

16.50.090 Residential uses.

A. *Public access* to the shoreline shall be required for the following residential developments:

1. Multiple-family dwelling unit developments, including mixed use developments that contain multiple-family dwelling units; and

2. New subdivisions of more than four lots.

B. Residential *accessory uses* must meet the following standards:

1. Non-water-dependent *accessory structures* other than below-grade swimming pools shall be limited to a 150-square-foot footprint.

2. Below-grade swimming pools shall be sited and designed so that they do not adversely affect the flow of groundwater or endanger unstable slopes.

3. *Accessory structures* shall be sited to preserve visual access to the shoreline from adjacent properties and public rights-of-way to the maximum extent practical.

4. Non-water-dependent *accessory structures* and facilities such as sheds, gazebos, swimming pools, and driveways shall not be located in vegetation conservation areas described in Chapter 16.60 KMC.

5. Foot ramps, stairs, and paths to a *dock*, *pier*, boat launch, or beach may be allowed in the vegetation conservation areas described in Chapter 16.60 KMC, but shall be limited to the minimum width necessary, and avoid native vegetation to the maximum extent practicable, to provide pedestrian access.

~~6. Private boat ramps serving a single residence shall not be located in vegetation conservation areas described in Chapter 16.60 KMC.~~

16.50.100 Channel migration zone on Swamp Creek.

A. Unless a site-specific study by a qualified professional concludes otherwise, ~~T~~the *channel migration zone* shall include:

1. The 500-year floodplain of Swamp Creek within shoreline jurisdiction; and

2. All area within 112.5 feet of Swamp Creek.

B. Within the *channel migration zone*:

1. There shall be no subdivision of land ~~within the *channel migration zone*~~ except for the purpose of creating permanent, nonbuildable open space tracts.

2. *Fill* shall not be allowed that impairs channel migration within the *channel migration zone*.

3. No new *development* is allowed where future stabilization, including bank stabilization as well as structural flood hazard reduction, would be necessary.

4. Existing structures can be protected but must use natural stabilization unless proven by a scientifically and technically valid study that the natural stabilization measures will not work.

5. Existing legal uses in the Swamp Creek floodplain can be repaired and maintained; provided, that such actions do not cause significant ecological impacts, increase flood hazards to other uses, and are consistent with other relevant laws.

6. Before new structural flood hazard reduction measures in shoreline jurisdiction can be approved, it must be demonstrated by a scientific and engineering analysis that they are necessary to protect existing development, that nonstructural measures are not *feasible*, that impacts on *ecological functions* and priority species and habitats can be successfully mitigated so as to assure *no net loss* of *ecological function*, and that appropriate vegetation conservation actions are undertaken.

C. A project proponent may have a *channel migration zone* study completed by a qualified professional hydrogeologist to be reviewed by the City. If the study demonstrates that the entirety of the development property is outside of the *channel migration zone*, then this section will not further apply to the project.

Chapter 16.55

SHORELINE MODIFICATIONS

Sections:

16.55.010 General shoreline modifications.
16.55.020 Interpretation of shoreline modifications table.
16.55.030 Shoreline modifications table and conditions.
16.55.040 Shoreline stabilization.
16.55.050 Water access structures~~Docks, piers, moorage, buoys, floats or launching facilities~~.
16.55.060 Grading, dredging, dredge material disposal and filling.

16.55.010 General shoreline modifications.

The *shoreline modifications* chapter shall not be used to authorize a *shoreline modification* that is not allowed by the underlying zoning, but may add additional restrictions or conditions or prohibit specific

modifications within the shoreline jurisdiction. All *shoreline modifications* in the shoreline jurisdiction must comply with all relevant City code provisions and with the Kenmore *Shoreline Master Program*.

16.55.020 Interpretation of shoreline modifications table.

The *shoreline modification* table in KMC 16.55.030 determines whether a specific *shoreline modification* is allowed within each of the *shoreline environments*. The *shoreline environment* is located on the vertical column and the specific ~~use~~modification is located on the horizontal row of the table. The specific modifications generally are grouped by the *shoreline modification* categories in WAC 173-26-231. The table should be interpreted as follows:

A. If the letter "P" appears in the box at the intersection of the column and the row, the modification may be allowed within the *shoreline environment* only if the underlying zoning allows the modification.

B. If the letter "C" appears in the box at the intersection of the column and the row, the modification may be allowed within the *shoreline environment* subject to the shoreline conditional use review procedures specified in Chapter 16.75 KMC, and only if the underlying zoning allows the modification.

C. If the letter "U" appears in the box at the intersection of the column and the row, the modification is subject to the same review process and standards as in the immediately adjacent upland *shoreline environment* designation.

~~C~~D. If a number appears in the box at the intersection of the column and the row, the modification may be allowed subject to the appropriate review process indicated in this section, the specific development conditions indicated with the corresponding number immediately following the table, and only if the underlying zoning allows the modification. If more than one number appears at the intersection of the column and row, both numbers apply.

~~D. If more than one letter-number combination appears in the box at the intersection of the column and the row, the modification is allowed within that *shoreline environment* subject to different sets of limitations or conditions depending on the review process indicated by the letter, the specific development conditions indicated in the development condition with the corresponding number in KMC 16.55.030(B), and only if the underlying zoning allows the modification.~~

E. If the letter "X" appears in the box at the intersection of the column and the row, the modification is prohibited in that *shoreline environment*.

F. If "NA" appears in the box at the intersection of the column and the row, the modification is not applicable in that *shoreline environment*.

16.55.030 Shoreline modifications table and conditions.

A. Shoreline Modifications Table.

Shoreline Modifications Table

KEY **P –** Permitted Modification **C –** Shoreline Conditional Use Required **X** – Prohibited Modification **U** – Same modification allowances as in adjacent upland Environment **NA –** Not applicable *Shoreline modifications* are allowed only if the underlying zoning allows the modification	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
Shoreline stabilization					
Shoreline stabilization, not including flood protection facilities	P1	P1	C1	C1	C1~~, P1~~
Repair or maintenance of *shoreline stabilization* facilities	P2	P2	P2	P2	P2
Flood protection facilities	P3	P3	P3	C3	P3
~~**Piers and docks**~~**Water access structures**[4]					
~~Docks, piers, moorage, buoys, floats or launching facilities~~	~~P4~~	~~P4~~	~~C4~~	~~C4~~	~~C4, P4~~
Boat launch – Residential (including community), nonmotorized	X	P	C	X	U
Boat launch – Residential (including community), motorized	X	C	X	X	U
Boat launch, Public or Commercial, nonmotorized	P	X	P	C	U
Boat launch, Public, motorized	P	X	P	X	U

4.

Shoreline Modifications Table

KEY **P –** Permitted Modification **C –** Shoreline Conditional Use Required **X** – Prohibited Modification **U** – Same modification allowances as in adjacent upland Environment **NA –** Not applicable *Shoreline modifications* are allowed only if the underlying zoning allows the modification	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
Boat launch, Commercial, motorized	P	X	X	X	U
Dock or *pier* – Residential (including community)	P	P	C	X	U
Dock or *pier* – Public	P	P	P	C	U
Dock or *pier*– Commercial	P	X	X	X	U
Watercraft lifts (including jet ski lifts)	P	P	X	X	U
Other *floats* and moorage buoys	P	P	P	X	U
Repair or replacement of existing water access structures	P	P	P	P	P
Fill					
~~Filling~~Upland outside of *floodplain*	P~~5, C5~~	P~~5, C5~~	~~P5, C5~~	C~~5~~	~~C5~~NA
Upland inside of *floodplain*	P	C	C	C	NA
In-water, *restoration*	NA	P	P	P	P
In-water, non-*restoration*	NA	C	C	C	C
Breakwaters, jetties, groins, and weirs					
Breakwaters, jetties, *groins* and weirs	C~~6~~5	C~~6~~5	C~~6~~5	C~~6~~5	C~~6~~5

Shoreline Modifications Table

KEY **P –** Permitted Modification **C –** Shoreline Conditional Use Required **X** – Prohibited Modification **U** – Same modification allowances as in adjacent upland Environment **NA –** Not applicable *Shoreline modifications* are allowed only if the underlying zoning allows the modification	**DOWNTOWN WATERFRONT**	**SHORELINE RESIDENTIAL**	**URBAN CONSERVANCY**	**NATURAL**	**AQUATIC**
Grading and dredging					
~~Grading, dredging, dredge material disposal~~	~~P5, C5~~	~~P5, C5~~	~~P5, C5~~	~~C5~~	~~C5~~
Dredging	NA	P	P	P	P
Grading	P	P	P7	C	NA
In-water disposal	NA	X	X	X	P
Upland disposal outside of *floodplain* or *channel migration zone*	P	P	P	C	NA
Upland disposal inside of *floodplain* or *channel migration zone*	C	C	C	C	NA
Shoreline habitat and natural systems enhancement projects					
Habitat and natural systems enhancement projects	P~~7~~6	P~~7~~6	P~~7~~6	P~~7~~6	P~~7~~6

B. Development Conditions (Footnotes for the Shoreline Modifications Table in Subsection A of this Section).

4.

1. *Shoreline stabilization*, including *bulkheads*, shall be permitted only when it has been demonstrated that stabilization is necessary to protect existing legally established primary structures, public improvements, proposed or existing *water-dependent* development, or projects for the *restoration* of *ecological functions* or hazardous substance remediation, and must meet the standards in KMC 16.55.040. In the Aquatic Environment, stabilization requires conditional use approval, unless located adjacent to a Downtown Waterfront or Shoreline Residential Environment.

2. An existing *shoreline stabilization* structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents~~, tidal action,~~ or waves. Normal maintenance and repair is allowed; provided, that all work is conducted in a manner that does not cause a net loss of *ecological functions*.

3. Flood protection facilities must be consistent with the standards in ~~Chapter 16.90 KMC, Flood Damage Prevention,~~ Chapter 18.55 KMC~~,~~ and the Integrated Stream Protection Guidelines (Washington Departments of Fish and Wildlife, Ecology, and Transportation, 2003).

4. Water access structures~~*Docks*, *piers*, moorage, buoys, *floats* or launching facilities~~ shall meet the standards in KMC 16.55.050 and are allowed only for:

    a. *Water-dependent uses*;

    b. *Public access*;

    c. Single detached residential units;

    d. Joint use facilities for multiple-family dwelling unit developments; or

    e. *Water-related* or *water-enjoyment uses* only as part of a mixed use development and only if auxiliary to and in support of a *water-dependent use*.

~~In the Aquatic Environment, docks, piers, moorage, buoys, floats and/or launching facilities require conditional use approval, unless located adjacent to a Downtown Waterfront or Shoreline Residential Environment.~~Water access structures are not allowed in Swamp Creek.

~~5. Excavation, dredging and filling must meet the standards in KMC 16.55.060. Fill placed waterward of the ordinary high water mark for any use except ecological restoration or for the maintenance and repair of flood protection facilities requires a conditional use permit. Disposal of dredged material within shorelands or wetlands within the shoreline jurisdiction requires a conditional use permit.~~

~~6~~5. *Breakwaters*, jetties, *groins* and weirs are only allowed where necessary to support *water-dependent uses*, *public access*, approved *shoreline stabilization*, or other public uses, as determined by the ~~director~~*city manager*. *Groins* are only allowed as part of a *restoration* project sponsored or cosponsored by a public agency that has natural resource management as a primary function.

~~7~~6. Shoreline habitat and natural systems enhancement projects may include *shoreline modifications* of vegetation, removal of nonnative or invasive plants, and *shoreline stabilization*, including the installation of large woody debris, *dredging* and filling, provided the primary purpose is clearly *restoration* of the natural character and *ecological functions* of the shoreline. Mitigation actions identified through biological assessments required by the NOAA Fisheries Service and applied to flood hazard mitigation projects may include *shoreline modifications* of vegetation, removal of nonnative or invasive plants, and *shoreline stabilization*, including the installation of large woody debris, *dredging* and filling.

7. Grading in the Urban Conservancy Environment is only permitted to support *public access*, restoration, or *water-oriented uses*. Otherwise, a conditional use permit shall be required.

16.55.040 Shoreline stabilization.

Shoreline stabilization may be permitted subject to the standards in this chapter, provided:

A. The *applicant* has demonstrated the following in order to construct new *shoreline stabilization*:

1. A *geotechnical analysis* demonstrates that erosion from waves or currents is imminently threatening and that damage is expected to occur within three years if the *shoreline stabilization* is not constructed;

2. The erosion rate exceeds that which would normally occur in a natural condition;

3. The erosion is not caused by upland conditions on the project site;

4. The proposed *shoreline stabilization* is the least hardened solution that is *feasible* to protect the structures or improvements, including consideration of nonstructural alternatives such as slope drainage systems, vegetative growth stabilization, and gravel *berms*;

5. The proposal is the minimum necessary to protect existing legally established primary structures, new non-*water-dependent* development, existing *water-dependent* development or projects for the *restoration* of *ecological functions* or hazardous substance remediation;

6. The proposed *shoreline stabilization* does not interfere with fluvial hydrological and geomorphological processes normally acting in natural conditions; and

7. Adequate mitigation measures that maintain existing shoreline processes and critical fish and wildlife habitat will be provided that ensure *no net loss* or function of riparian habitat.

B. *Shoreline stabilization* to replace existing *shoreline stabilization* shall be placed landward of any existing *shoreline stabilization*, except that it may be placed waterward directly abutting the old structure only in cases where the existing *bulkhead* was installed prior to January 1, 1992, and removal of the old structure would result in greater impact on *ecological functions*.

C. The maximum height of the proposed *shoreline stabilization* shall be no more than four feet in height on Lake Washington.

D. *Shoreline stabilization* shall minimize the adverse impact on the property of others to the maximum extent practical.

E. *Shoreline stabilization* shall not be used to create new lands.

F. *Shoreline stabilization* shall not interfere with surface or subsurface drainage into the water body.

G. Automobile bodies, tires or other junk or waste material which may release hazardous substances shall not be used for *shoreline stabilization*.

H. *Shoreline stabilization* shall be designed so as not to constitute a hazard to navigation and shall not substantially interfere with visual access to the water.

I. *Shoreline stabilization* shall be designed so as not to create a need for *shoreline stabilization* elsewhere.

J. *Shoreline stabilization* shall comply with the Integrated Stream Protection Guidelines (Washington Departments of Fish and Wildlife, Ecology, and Transportation, 2003) and shall be designed to allow for appropriate *public access* to the shoreline.

16.55.050 ~~Docks, piers, moorage, buoys, floats or launching facilities~~Water access structures.

A. ~~Any~~All water access structures, including *dock*s, *pier*s, moorage~~,~~ buoys, *float*s or launching facilit~~y~~ies authorized by this chapter shall ~~not interfere with navigation~~comply with the following general standards~~.~~:

~~B~~1. Any ~~dock, pier, moorage, buoy, float or launching facility~~water access structure authorized by this chapter shall not interfere with navigation~~be subject to the following requirements:~~.

~~1. Docks, piers, moorage, buoys, floats or launching facilities shall not exceed the minimum size necessary to serve the use for which they are designed (see KMC 16.55.030(B)(4)).~~

~~2. Docks, piers, moorage, buoys, floats or launching facilities serving more than four single-family residences must also meet the standards in KMC 16.50.050.~~

~~3. Only joint use boat lift, dock, pier, moorage, buoys, float or launching facilities may be permitted for multiple-family dwelling unit development proposals.~~

~~4. Only one boat lift, dock, pier, moorage, buoy, float and launching facility may be permitted for each parcel developed with a single detached residential unit and only if the applicant demonstrates there is no other feasible option for shared use facilities. However, installation or retention of additional watercraft lifts beyond one, without a canopy, at a single residential use waterfront structure is allowed. A maximum of three lifts are allowed at a single residential use overwater structure. However, only two lifts can be ground based; all other lift(s) must be floating or suspended lift(s).~~

~~5. Only joint use docks or piers are allowed on lots with less than 50 feet of waterfront except when lots abutting both sides of the subject lot already have a dock or pier.~~

~~6. The only structures permitted in the first 30 feet waterward of the ordinary high water mark are piers and ramps. All floats and ells must be at least 30 feet waterward of the ordinary high water mark.~~

~~7. No skirting is allowed on any structure.~~

~~8. Surface coverage (includes all overwater portions of the floats, ramps, and ells) shall be limited as follows:~~

~~a. Moorage facilities serving only one residential waterfront lot shall not exceed 480 square feet;~~

~~b. Moorage facilities serving two residential waterfront lots shall not exceed 700 square feet; and~~

~~c. Moorage facilities serving three or more residential waterfront lots shall not exceed 1,000 square feet.~~

~~9. To protect anadromous salmon habitat, the following shall apply:~~

~~a. Docks with configurations that do not include any or all of the following elements shall be subject to the overall length and square footage limitations of this section and no portion of the dock shall exceed four feet in width, unless allowed in this subsection;~~

~~b. Piers shall not exceed four feet wide and shall be fully grated;~~

~~c. Ramps shall not exceed three feet wide and shall be fully grated;~~

~~d. Ells are allowed only over water with depths of nine feet or greater at the landward end of the ell; ells may be up to six feet wide by 20 feet long with a two-foot-wide strip of grating down the center; or ells may be up to six feet wide by 26 feet long with grating over the entire ell;~~

~~e. Floats are allowed only over water with depths of 10 feet or greater at the landward end of the float; and floats may be up to six feet wide by 20 feet long with a two-foot-wide strip of grating down the center;~~

~~f. In no case may any moorage facility extend more than 150 feet waterward of the ordinary high water mark;~~

~~g. The first (nearest shore) piling shall be steel, four-inch piling and at least 18 feet waterward of the ordinary high water mark. Piling sets beyond the first are not required to be steel, shall be spaced at least 18 feet apart and shall not be greater than 12 inches in diameter;~~

~~h. Piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate or comparably toxic compounds. If ammoniacal copper zinc arsenate pilings are proposed, the applicant will meet all of the best management practices, including a post-treatment procedure, as outlined in the amended Best Management Practices of the Western Wood Preservers; and~~

~~i. When steel piles are installed, approved sound attenuation measures must be used.~~

~~10~~2. Existing habitat features (e.g., large and small woody debris, substrate material, etc.) shall be retained and new or expanded ~~moorage facilities~~water access structures placed to avoid disturbance of such features.

4.

~~11~~3. Invasive aquatic weeds may be removed by mechanical or manual methods, or controlled with herbicides ~~nonchemical means only, except that milfoil may be removed using chemicals;~~ provided~~,~~ that the chemicals are applied by a licensed applicator and approved for aquatic use.

~~12~~4. In order to mitigate the impacts of new or expanded ~~commercial moorage facilities~~water access structures, the *applicant* shall develop a mitigation plan that contains one or more of the following measures as necessary to demonstrate *no net loss* of *ecological functions*:~~shall plant emergent vegetation (if site-appropriate) and a buffer of vegetation a minimum of 10 feet wide along the entire length of the lot immediately landward of the ordinary high water mark. Planting shall consist of native shrubs and trees and, when possible, emergent vegetation. At least five native trees will be included in a planting plan containing one or more evergreen trees and two or more trees that like wet roots (e.g., willow species) per every 100 lineal feet of shoreline. Such planting shall be monitored for a period of five years according to an approved monitoring plan. This subsection is not intended to prevent reasonable access through the shoreline critical area buffer to the shoreline, or to prevent recreational use of the shoreline critical area. This requirement may be waived or reduced for water-dependent transportation uses where it is demonstrated that vegetation could result in safety or navigation hazards.~~

a. Removal of any additional existing over-water and/or in-water structures that are not the subject of the application or are not otherwise required to be removed.

b. Planting of native vegetation along the shoreline immediately landward of the *ordinary high water mark* consisting of trees and/or shrubs native to Puget Sound lowlands.

c. Removal or ecological improvement of hardened shoreline, including existing launch ramps or hard structural *shoreline stabilization*. Improvements may consist of softening the face and toe of the stabilization with soil, gravel and/or cobbles and incorporating vegetation or large woody debris.

d. Removal of man-made debris or other material waterward of the *ordinary high water mark* that is detrimental to *ecological functions* and *ecosystem-wide processes*.

e. Participation in an approved mitigation banking or in-lieu-fee program.

~~13~~5. No ~~private moorage or other~~water access structure waterward of the *ordinary high water mark*, including structures attached thereto, shall be closer than 12 feet to any adjacent property line except when there is a mutual agreement of adjoining property owners. Excepted from the

requirements of this section are boat lifts or portions of boat lifts that do not exceed 30 inches in height measured from the *ordinary high water mark*.

~~15~~6. No covered ~~boat lift, dock, pier, covered moorage, covered float, or other covered~~water access structure is permitted waterward of the *ordinary high water mark*, except as provided below:

a. Submerged, free-standing mechanical boat lifts associated with single detached residential *docks* or *piers* and recreational watercraft may be covered with a canopy, provided:

(1) No canopy shall be more than 25 feet in length or wider than 15 feet;

(2) No portion of the canopy shall exceed a height of 12 feet above the *ordinary high water mark*;

(3) The canopy shall at no time have any side partly or wholly enclosed;

(4) The highest portion of the canopy shall be located below the lowest grade point on the waterward side of the existing homes on surrounding properties;

(5) Canopies shall be made out of ~~canvas or other such~~ nontoxic materials that allow light transmission;

~~(6) Canopies shall be of a translucent material to allow light transmission;~~

(~~7~~6) The total overwater coverage of the *piers*, *floats*, *ramps*, *ells*, and canopy for a single-family residence with a single-use moorage shall not exceed 600 square feet; and

(~~8~~7) Only one boat lift canopy per single detached residence shall be allowed.

b. Covered moorage may be provided for commercial boat repair facilities.

~~14~~7. Proposals to repair or replace existing legally established ~~moorage facilities~~water access structures in the existing configuration and footprint are allowed, provided the following requirements are met, as applicable:

a. Materials used for *pier* and *dock* repairs shall meet the requirements established in subsection B of this section;

b. Any decking that is replaced shall be grated to allow for light transmission, except on *floats* where the decking overlays a float tub;

c. Any piles that are replaced shall be the minimum diameter and at the maximum spacing feasible to support the *pier* or *dock* configuration; and

d. *Pier* projects which replace 75 percent or more of the *pier* support piles shall be reviewed as new *piers* which must comply with all standards in this chapter.

~~where the nature of the repair is not described in KMC 16.55.030 shall be considered minor repairs and are permitted, consistent with any applicable standards of this title, KMC Title 18 and any other applicable codes or regulations.~~

~~16~~8. No dwelling unit may be constructed on a *dock* or *pier*.

B. Any *pier, dock*, watercraft lift, or mooring buoy authorized by this chapter shall be subject to the following requirements:

Element	Overwater Structure Dimensional and Design Standards	
	Lake Washington	Sammamish River
General	• No skirting is allowed on any structure. • When steel piles are installed, approved sound attenuation measures must be used. • Only one *dock* or *pier* may be permitted for each parcel developed with a single detached residential unit and only if the *applicant* demonstrates there is no other *feasible* option for shared use facilities. • Only joint-use *docks* or *piers* are allowed on lots with less than 50 feet of waterfront except when lots abutting both sides of the subject lot already have a *dock* or *pier*. • Only joint use boat lifts, *docks*, *piers*, moorage buoys, *floats* or launching facilities may be permitted for multiple-family dwelling unit development proposals. • *Docks*~~,~~ or *piers* serving *boating facilities* must also meet the standards in KMC 16.50.050. • All float tubs shall be fully encapsulated. • An alternative design in lieu of meeting these requirements may be allowed without a shoreline variance if approved by other state and federal agencies, provided any impacts are appropriately mitigated and the facility does not interfere with public use of the shoreline.	
Maximum Area: surface coverage of over-water structures.	• *Docks* or *piers* shall not exceed the minimum size necessary to serve the use for which they are designed • 480 sq. ft. for single residential unit • 700 sq. ft. for joint-use facility used by 2 residential units	• *Docks* or *piers* shall not exceed the minimum size necessary to serve the use for which they are designed • 120 sq. ft. for single residential unit • 240 sq. ft. for joint-use facility used by 2 residential units

Element	Overwater Structure Dimensional and Design Standards	
	Lake Washington	Sammamish River
including any *ramps* and *floats*	• 1,000 sq. ft. for joint-use facility used by 3 or more residential units	• 360 sq. ft. for joint-use facility used by 3 residential units • 480 sq. ft. for joint-use facility used by 4 residential units
Maximum Width	Residential up to 4 Units • 4 ft. for *pier or dock* • 4 ft. for *ramp* • 6 ft. for *ell* and *float* Public, Commercial or More than 4 Residential Units • 8 ft. for main walkway, 5 ft. for perpendicular fingers or *ells* • 5 ft. for *ramp* • 8 ft. for *ell* and *float*.	Residential up to 4 Units • 4 ft. for *ramp* • 6 ft. for *float* Public, Commercial or More than 4 Residential Units • 5 ft. for *ramp* • 6 ft. for *float*
Maximum Length	• 26 ft. for *ells* • 20 ft. for *floats* • In no case may any moorage facility extend more than 150 feet waterward of the *ordinary high water mark*.	• 20 ft. per *float* per residential unit, and laid end-to-end. The maximum length is thus 20 ft., 40 ft., 60 ft., and 80 ft. for facilities serving 1, 2, 3 and 4 residential units, respectively. *Floats* may be perpendicular to shore only within existing embayments off of the main river channel. • Public or commercial *docks* should be no longer than 80 feet unless project-specific justification of need is provided. • *Ramps* shall be the minimum length necessary to provide safe access to the *float*. The length of the *ramp* and the distance between the *float* and the *ordinary high water mark* are determined by the height of the bank above the *ordinary high water mark* and the distance waterward of the *ordinary high water mark* needed to place the *float*

Element	Overwater Structure Dimensional and Design Standards	
	Lake Washington	Sammamish River
		and a boat at a depth that does not result in grounding of the *float* or boat on the substrate or disturbance of the substrate by boat propeller action.
Decking and Material Standards	• *Ramps* and *piers*, including *ells* and perpendicular fingers, shall be fully grated. • *Floats* shall be fully grated on all deck surfaces not underlain by float tubs, with a maximum area of float tub of 70 percent of the total *float* area. The number and area of float tubs shall be minimized to the amount necessary based on design and engineering considerations.	• *Floats* shall be fully grated on all deck surfaces not underlain by float tubs, with a maximum area of float tub of 70 percent of the total *float* area. The number and area of float tubs shall be minimized to the amount necessary based on design and engineering considerations. • *Ramps* shall be fully grated.
	• The grating must be either multi-directional grating with a minimum of 40% open space or square grating with a minimum of 60% open space. Provide documentation to show amount of % open area.	
Location	• The only structures permitted in the first 30 feet waterward of the *ordinary high water mark* are *piers* and *ramps*. • All *floats* and *ells* must be at least 30 feet waterward of the *ordinary high water mark*.	• *Floats* shall be located no less than 5 feet and no more than 10 feet from the *ordinary high water mark* measured from the landward edge of the *float*. To avoid interfering with river navigation and public use of the water, private moorage facilities may extend no farther waterward than one-third the width of the river in the location of the proposed structure. • The *city manager* may allow *floats* to be positioned up to an additional 10 feet waterward from the *ordinary high water mark* as needed to reach a sufficient boat moorage depth (greater than 3 feet). • *Floats* shall be located as far as feasible from the mouth of any named or numbered tributary entering the

ATTACHMENT 1

Element	Overwater Structure Dimensional and Design Standards	
	Lake Washington	Sammamish River
		Sammamish River to reduce potential conflict with migrating salmon.
Piles	• The first (nearest shore) piling shall be steel, 4-inch-diameter or the smallest diameter necessary to serve the specific structure as demonstrated by an engineer, and at least 18 feet waterward of the *ordinary high water mark*. • Piling sets beyond the first are not required to be steel, shall be spaced at least 18 feet apart and shall not be greater than 12 inches in diameter unless required per project-specific engineering analysis.	• No more than two anchor piles shall be allowed per private moorage facility (joint-use, public or commercial facilities may have two piles per 20 feet of *float* length, but the number of piling for such facilities shall be the minimum number given site-specific engineering and design considerations). • Anchor piles shall be the minimum size *feasible* given site-specific engineering and design considerations, but in no case shall anchor piles be greater than 12 inches in diameter unless a larger size allows for a reduced number of piles.
Materials	• Any paint, stain or preservative applied to components of the overwater structure must be leach-resistant, completely dried or cured prior to installation. • Materials shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds as outlined in the latest edition of the Western Wood Preservers Institute Best Management Practices for the Use of Treated Wood in Aquatic and Sensitive Areas. • If ACZA-treated pilings are proposed, the *applicant* will meet all of the Best Management Practices, including a post-treatment procedure, as outlined in the amended Best Management Practices of the Western Wood Preservers Institute.	
Watercraft lifts	• One free-standing or floating boatlift with a canopy is allowed per detached dwelling unit. • Additional watercraft lifts, without a canopy, at a single residential use waterfront structure are allowed, not to exceed three and only two can be ground-based; all other lift(s) must be floating or suspended lift(s).	• One free-standing or floating boatlift with a canopy is allowed per detached dwelling unit OR 2 jet ski lifts or 1 fully grated platform lift is allowed, per detached dwelling unit • Boatlifts shall be located on the waterward, upstream or downstream sides of the *dock,* not on the landward side of the *dock*.

4.

Element	Overwater Structure Dimensional and Design Standards	
	Lake Washington	Sammamish River
		• A maximum of 2 cubic yards of *fill* are permitted to anchor a boatlift, subject to the following requirements: – May only be used if the substrate prevents the use of anchoring devices that can be embedded into the substrate – Must be clean – Must consist of rock or pre-cast concrete blocks – Must only be used to anchor the boatlift – Minimum amount of *fill* is utilized to anchor the boatlift
Mooring Buoys	• No more than one (1) mooring buoy is permitted per detached dwelling unit, in lieu of a *dock* or *pier*. • Mooring buoys shall not interfere with navigation. • ~~b.~~ The use of buoys for moorage of recreational and commercial vessels is preferred over pilings or *float* structures. • ~~c.~~ Buoys shall be located and managed in a manner that minimizes impacts to aquatic habitat. • ~~d.~~ No more than four buoys per acre of surface water are allowed. • Use of helical anchors with a midline float to prevent dragging on the river or lake bottom is the preferred method to secure buoys.	

~~17. Buoys shall meet the following conditions:~~

~~a. Buoys shall not impede navigation;~~

C. Any boat launch authorized by this chapter shall be subject to the following requirements:

1. Location Standards

a. Boat launches shall be sited so that they do not significantly damage fish and wildlife habitats and shall not occur in areas with native emergent vegetation. Removal of native upland vegetation shall be minimized to the greatest extent *feasible*.

b. Boat launches shall not be approved in cases when it can be reasonably foreseen that the development or use would require maintenance *dredging* during the life of the development or use.

c. Motorized boat launches shall be separated from existing designated swimming areas and other water access structures on adjacent properties by a minimum of 25 feet.

d. Motorized boat launches shall be located only at sites with suitable transportation access. The *applicant* must demonstrate that the streets serving the boat launch can safely handle traffic generated by such a facility, and that parking for vehicles and attached trails is sufficient.

e. Motorized boat launches shall be located farther than 50 feet from the outlet of a stream, including piped streams.

2. Size – The *applicant* shall demonstrate that the proposed size of the boat launch is the minimum necessary to safely launch the intended craft.

3. Design Standards

a. Nonmotorized boat launches shall be constructed of gravel or other similar natural material.

b. Motorized boat launch designs, in order of preference, are:

(1) Open grid with minimum coverage of substrate.

(2) Seasonal ramps that can be removed and stored upland.

(3) Structures with segmented pads and flexible connections that leave space for natural beach substrate and can adapt to changes in shoreline profile.

4. Boat launches shall provide trailer spaces, at least 10 feet by 40 feet, commensurate with projected demand.

~~C~~D. Proposals that do not meet the requirements of subsection B ~~(B)(6), (B)(8), (B)(9) or (B)(15)~~ of this section and that are designed to support a commercial or light manufacturing *water-dependent use*, or to provide *public access*, or to serve residential uses, may be considered by the ~~director~~*city manager*. For any alternative proposal, the *applicant* must demonstrate that the proposed deviation is the minimum

necessary to meet the needs of the specific use proposed, and provides an equal or greater degree of protection of *ecological functions* and anadromous species habitat than would strict adherence to the standards. For purposes of meeting this requirement, the ~~director~~*city manager* will review the required habitat management plan to determine whether the project is adequately protective.

16.55.060 Grading, dredging, dredge material disposal and filling.

Grading, *dredging*, dredge material disposal and filling must be consistent with Chapter 16.90 KMC and may be permitted in *shorelines* only as follows:

A. *Fill* may be permitted below the *ordinary high water mark* only:

1. When necessary to support a *water-dependent* use;

2. To provide for *public access*;

3. When necessary to mitigate conditions that endanger public safety, including flood risk reduction projects;

4. To allow for cleanup and disposal of contaminated *sediments* as part of an interagency environmental cleanup plan;

5. To allow for the disposal of dredged material considered suitable under, and conducted in accordance with, the dredged material management program of the Washington Department of Natural Resources;

6. For expansion or alteration of transportation or utility facilities currently located on the shoreline and then only upon demonstration that alternatives to *fill* are not *feasible*; or

7. As part of mitigation actions, environmental *restoration* projects and habitat enhancement projects.

B. *Grading*, *dredging*, and filling shall be located, designed, and constructed to protect shoreline *ecological functions* and *ecosystem-wide processes*, including channel migration, and mitigation shall employ the mitigation sequence in KMC 18.55.210.

C. *Dredging* and dredged material disposal below the *ordinary high water mark* shall be permitted only:

1. When necessary for the operation of a *water-dependent use*;

2. When necessary to mitigate conditions that endanger public safety or fisheries resources;

3. For establishing, maintaining, expanding, relocating or reconfiguring navigation channels and basins when necessary to ensure safe and efficient accommodation of existing navigation uses when:

   a. Significant ecological impacts are minimized;

   b. Mitigation is provided, employing the mitigation sequence in KMC 18.55.210; and

   c. *Dredging* is maintained to the existing authorized location, depth and width;

4. For *restoration* projects associated with implementation of the Model Toxics Control Act or the Comprehensive Environmental Response, Compensation, and Liability Act; or any enhancement or *restoration* project; or

5. For flood risk reduction projects conducted in accordance with Chapter 16.90 KMC.

D. *Dredging* is not allowed waterward of the *ordinary high water mark* for the primary purpose of obtaining fill material.

E. Disposal of dredged material shall be done only in approved upland disposal sites and is not allowed within *critical areas* or their buffers.

F. Stockpiling of dredged material in or under water is prohibited.

G. In order to ensure that operations involving dredged material disposal and maintenance *dredging* are consistent with the *Shoreline Master Program* as required by RCW 90.58.140(1), no *dredging* may commence in any *shoreline environment* without the responsible person having first obtained either a substantial development permit or a statement of exemption. A statement of exemption or shoreline permit is not required prior to emergency *dredging* needed to protect property from imminent damage by the elements if a statement of exemption or substantial development permit is subsequently obtained following the procedures in Chapter 16.75 KMC.

H. The removal of gravel for flood management is allowed only after a biological and geomorphological study shows that extraction has a long-term benefit to flood hazard reduction, does not result in a net loss of *ecological functions*, and is part of a comprehensive flood management solution.

Chapter 16.60

VEGETATION CONSERVATION IN BUFFERS

Sections:

16.60.010 Vegetation conservation areas.

16.60.020 Vegetation management within critical areas and buffers.

~~**16.60.030 Vegetation management within Lake Washington shoreline buffers.**~~

16.60.010 Vegetation conservation areas.

A. *Shoreline buffers* shall be considered vegetation conservation areas in which existing native vegetation is retained, except in the following circumstances:

1. The activity is part of a permitted shoreline *restoration* or enhancement project;

2. The activity is an allowed *water-dependent* or *water-enjoyment use* or modification;

3. The activity implements a *public access* or recreation maintenance plan;

4. The vegetation removal is otherwise specifically allowed under Chapter 16.50, 16.55, or 18.55 KMC.

Such vegetation clearing must occur only in the minimum shoreline area that is necessary to support the permitted use and must be mitigated. ~~unless removal is specifically allowed in this chapter or it can be demonstrated that another management approach would provide equal or better protection for shoreline ecological processes and functions.~~ Nonnative vegetation may be retained unless otherwise required to be replaced as part of an enhancement associated with *development* or expansion of *development* on the property.

B. Native and nonnative trees determined by the City to be hazardous or diseased may be removed. Selective pruning for safety and view protection is allowed, provided pruning is conducted in a manner that minimizes harm to the health of the trees being pruned.

C. Nonnative vegetation may be removed as part of a *restoration* or enhancement project if replacement plantings will provide greater benefit to shoreline ecological processes than would be provided by strict application of this chapter.

D. Landscaping plans for *shoreline buffers* associated with shoreline *development* regulated under the shoreline code must be prepared by a landscape architect or certified professional wetland scientist. Landscaping plans are not required for normal maintenance, including maintenance of existing nonconforming landscaping that complies with KMC 16.75.050.

E. Landscaping plans for *shoreline buffers* should avoid adverse impacts on existing public views of the shoreline.

F. Vegetation management in *shorelines* shall be consistent with the requirements for *grading* permits under Chapter 15.25 KMC. If there is a conflict between this chapter and Chapter 15.25 KMC, the more restrictive standards shall apply.

G. When considering compensatory habitat enhancement as mitigation for impacts from new structures, such as when a reduced buffer or a non-*water-dependent use* is requested, the enhancement should be proportional to the degree of impact of the new structure on shoreline *ecological functions*, and take into account the degree to which the existing buffer has already been compromised. Enhancement should focus on restoring *ecological functions* that are most critical and that have been most diminished in the Kenmore shoreline. In approving any compensatory habitat enhancement plan, the ~~director~~*city manager* shall consider the changes in surface water runoff rates and water quality (such as through increased impervious area), habitat structure (such as loss or alteration of vegetation), and habitat quality (such as from lighting, noise, or activities) that the project would cause. Enhancements should generally focus on offsetting these impacts but may focus on restoring other critical *ecological functions* in the shoreline that have been lost or diminished (such as placement of large woody debris in water or restoring shallow water habitat). The ~~director~~*city manager* may determine whether an enhancement that provides a broader benefit may be substituted for one that would offset the impacts of an individual project. The ~~director~~*city manager* may deny a request to allow intrusion into a buffer or for *development* of a non-*water-dependent use* if the enhancement proposed does not fully mitigate the impacts of the project or provide a sufficient broader benefit.

16.60.020 Vegetation management within critical areas and buffers.

A. The ~~V~~egetation management standards established in KMC Chapter 18.55~~.150(A), 18.55.320(F)(5) and (6), 18.55.520(A)(2)(d) and (G), 18.55.530 and 18.55.650(A)(5)~~ for *critical areas* and their buffers shall apply within all *shorelines*.

~~B. Vegetation management standards established in KMC 18.55.420 for streams and their buffers shall apply within Sammamish River and Swamp Creek shorelines. In addition to provisions for recreational~~

uses in KMC 16.65.020 allowing limited modifications to critical area buffers for the purposes of public access improvements, the following standards shall apply in shorelines:

1. In Swamp Creek Park, public access trails may be located within critical areas and required buffers, when planned along with a habitat restoration project and it is demonstrated that the ecological functions of the overall standard stream buffer area would be substantially improved. Trails in Swamp Creek Park roughly paralleling the shoreline of the Sammamish River or Swamp Creek shall generally be located at least 50 feet from the ordinary high water mark, but trails may extend closer to the water if necessary to reduce impacts on critical areas or adjacent properties, or access a pedestrian bridge across Swamp Creek. Spur trails may be extended to the water's edge but such access areas should be limited in order to protect ecological functions of the stream buffer and wetlands.

2. When public access is being provided as a part of mixed use development allowed in the Urban Conservancy Environment under KMC 16.50.030(B)(2)(a)(2), the director may allow public access trail development within the buffer in order to link with adjacent shoreline access, provided any new trail is farther from the shoreline than the waterward extent of existing development on the site and the proposed trail plan is accompanied by a plan demonstrating that the ecological functions of the overall required buffer area on a project site would be substantially improved. [Ord. 12-0334 § 3 (Exh. 1).]

16.60.030 Vegetation management within Lake Washington shoreline buffers.

A. Vegetation removal within lake *shoreline buffers* is prohibited in the Shoreline Residential, Urban Conservancy, and Natural Shoreline Environments along Lake Washington unless the activity is part of a shoreline *restoration* or enhancement project or the vegetation removal is otherwise specifically allowed under Chapter 16.50 or 16.55 KMC.

B. Vegetation clearing for permitted water-dependent uses is allowed in the Downtown Waterfront Environment. Such vegetation clearing must occur only in the minimum shoreline area that is necessary to support the permitted water-dependent use.

ATTACHMENT 2

Chapter 18.55
CRITICAL AREAS

Sections:

Article XVI. Geologically Hazardous Areas – Designation

18.55.600 Purpose.
18.55.610 Designation of geologically hazardous areas.
18.55.620 Designation of specific hazard areas.

Article XVII. Geologically Hazardous Areas – Report Requirements

18.55.630 Critical areas report.

Article XVIII. Geologically Hazardous Areas – Performance Standards

18.55.640 Performance standards – General requirements.
18.55.650 Performance standards – Specific hazards.

Article XVI. Geologically Hazardous Areas – Designation

18.55.600 Purpose.

The primary purpose of *geologically hazardous area* regulations is to avoid and minimize potential impacts to life and property from geologic hazards.

18.55.610 Designation of geologically hazardous areas.

Geologically hazardous areas include areas susceptible to *erosion*, landsliding, earthquake, or other geological events. They pose a threat to the health and safety of citizens when incompatible *development* is sited in hazard areas ~~of significant hazard~~. Such incompatible *development* may not only place itself at risk, but also may increase the hazard to surrounding *development* and *use*. Areas susceptible to one or more of the following types of hazards shall be designated as a *geologically hazardous area*:

A. *Erosion* hazard;

B. *Landslide* hazard;

C. Seismic hazard; and

D. Other geological events including ~~*mass wasting,*~~ *debris flows*~~, rock falls,~~ and *differential settlement*.

18.55.620 Designation of specific hazard areas.

A. *Erosion Hazard Areas*. *Erosion hazard areas* are those areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service or identified by a special study as having a "moderate to severe," "severe," or "very severe" *erosion* potential.

B. High *Landslide Hazard Areas*. High ~~L~~*landslide hazard areas* are areas ~~potentially subject to~~at high risk of *landslides* based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Examples of these may include, but are not limited to, the following:

1. Areas of historic failures, such as:

   a. Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "severe" limitation for building site *development*; or

   b. Areas designated as Quaternary slumps, earthflows, mudflows, or *landslides* on maps published by the U.S. Geological Survey or State Department of Natural Resources; or

   c. Areas identified on King County's 2017 map of unstable slopes and as amended.

2. Areas with all three of the following characteristics:

   a. Slopes steeper than 15 percent; and

   b. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying relatively impermeable sediment; and

   c. Springs or ground water seepage.~~;~~

3. Areas that have shown movement during the ~~Holocene epoch~~post-glacial period (from 1~~0~~6,000 years ago to the present) or that are underlain or covered by mass wastage debris of that ~~epoch~~time period, as shown on U.S. Geological Survey, Washington Department of Natural Resources, or King County maps;

~~4. Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials;~~

~~5~~4. Areas potentially unstable because of rapid *stream* incision, stream bank *erosion*, and undercutting by wave action; and

~~6~~5. Areas located in a canyon or on an active alluvial fan, presently or potentially subject to inundation by *debris flows* or catastrophic flooding~~; and~~.

C. Moderate *Landslide Hazard Areas*. Moderate *landslide hazard areas* are areas at moderate risk of *landslides* based on a combination of geologic, topographic, and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors. Examples of these may include, but are not limited to, the following:

~~7~~1. Areas with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet. A slope is delineated by establishing its toe and measured by averaging the inclination over at least 10 feet of vertical relief.

~~C~~D. *Seismic Hazard Areas*. *Seismic hazard areas* are locations subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, tsunami, or surface faulting. One indicator of potential for future earthquake damage is a record of earthquake damage in the past. Ground shaking is the primary cause of earthquake damage in Washington. The strength of ground shaking is primarily affected by:

1. The magnitude of an earthquake;

2. The distance from the source of an earthquake;

3. The type or thickness of geologic materials at the surface; and

4. The type of subsurface geologic structure.

Settlement, ~~and~~ soil liquefaction, and lateral spreading ~~conditions~~ occur in areas underlain by cohesionless, loose, or soft-saturated soils of low density, typically in association with ~~a~~ shallow ground water ~~table~~. Tsunami or seiche waves triggered by an earthquake or seismically-induced landslides can inundate shoreline-adjacent land, such as along Lake Washington or the lower reaches of the Sammamish River.

In Kenmore, *seismic hazard areas* include liquefaction-prone areas and a potential strand of the Southern Whidbey Island Fault Zone known as the Kenmore Lineament as designated by the Washington Department of Natural Resources.

~~D~~E. Other Hazard Areas. *Geologically hazardous areas* shall also include areas determined by the *city manager* to be susceptible to other geological events including ~~*mass wasting,*~~ *debris flows*~~,~~ and *differential settlement*.

Article XVII. Geologically Hazardous Areas – Report Requirements

18.55.630 Critical areas report.

A. A *critical areas* report shall be required for all proposed *alterations* of properties that are located within 200 feet of any *geologically hazardous area*. Requirements for *critical areas* reports for *geologically hazardous areas* are available from the *city manager*.

B. At its discretion, the City may require *applicants* to fund a third-party review of the *critical areas* report by a *qualified professional* selected by the *City* and agreed to by the *applicant*. The *applicant* shall make substantive changes to the proposed *alteration* or provide additional analysis as directed by the third-party reviewer.

Article XVIII. Geologically Hazardous Areas – Performance Standards

18.55.640 Performance standards – General requirements.

~~b~~A. *Structures* and site improvements shall be *clustered* to avoid *geologically hazardous areas* and other *critical areas*;

~~A~~B. *Alterations* of *geologically hazardous areas* or associated *buffers* may only occur for activities that:

1. Will not increase the threat of the geological hazard to adjacent properties beyond predevelopment conditions;

2. Will not adversely impact other *critical areas*;

3. Are designed so that the hazard to the project is eliminated or mitigated to a level equal to or less than predevelopment conditions; and

4. Are ~~certified as~~determined to be safe as sited and designed and under anticipated conditions by a qualified engineer ~~or *geologist*~~, or engineering geologist, as appropriate, licensed in the State of Washington.

~~B~~C. *Critical Facilities* Prohibited. *Critical facilities* shall not be sited within *geologically hazardous areas* unless there is no other *practical alternative*. If so sited, the design shall be adequate to mitigate the effects of the hazard.

18.55.650 Performance standards – Specific hazards.

A. *Erosion* ~~and *Landslide* *Hazard Areas*~~. Activities on *sites* containing *erosion* ~~or *landslide*~~ hazards shall meet the following requirements:

1. *Buffer* Not Required for *Erosion Hazard Areas*. No *buffer* is required from an area categorized as only an *erosion hazard area*.

2 *Best Management Practices. Best management practices* for sediment and erosion control shall be implemented in an *erosion hazard area*.

~~5~~3. *Vegetation* Shall Be Retained. Unless otherwise provided or as part of an approved *alteration*, removal of *vegetation* from an *erosion* ~~or *landslide*~~ *hazard area* ~~or related *buffer*~~ shall be prohibited.

~~6~~4.Seasonal Restriction. ~~*Clearing*~~*Site development work* shall be allowed only from May 1st to October 1st of each year; provided, that the ~~*C*~~*city manager* may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved *forest practice* permit issued by the *City* or the Department of Natural Resources.

~~7~~5. Utility Lines and Pipes. Utility lines and pipes shall be permitted in *erosion* ~~and *landslide*~~ *hazard areas* only when the *applicant* demonstrates that no other *practical alternative* is available. Such utilities shall be designed by qualified professionals to resist ground movement and *erosion*. ~~The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior.~~

~~8~~6. Point Discharges. Point discharges from surface water facilities and roof drains onto or upstream from an *erosion* ~~or *landslide*~~ *hazard area* shall be prohibited except as follows:

a. Conveyed via continuous storm pipe downslope to a point where there are no *erosion hazard areas* downstream or downslope from the discharge; or

b. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predeveloped state~~; or~~

~~c. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed *buffer* demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope~~.

~~3~~7. *Alterations*. In addition to meeting the requirements in KMC 18.55.640, ~~A~~a*lterations* of an *erosion hazard area* ~~or a *landslide hazard area* and/or its *buffer*~~ may only occur for activities for which a special study is submitted ~~and certifies~~demonstrating that:

a. The *alteration* will not increase surface water discharge or sedimentation to adjacent properties beyond predevelopment conditions.~~;~~

~~b. The *alteration* will not decrease slope stability on adjacent properties; and~~

~~c. Such *alterations* will not adversely impact other *critical areas*.~~

B. *Landslide Hazard Areas*. In addition to meeting the requirements in KMC 18.55.640, activities on *sites* containing *landslide* hazards shall meet the following requirements:

~~2~~1. General Standards. The following standards shall apply in all *landslide hazard areas*:

a. *Buffer* Required for *Landslide Hazard Areas*. A *buffer* shall be established from all edges of *landslide hazard areas*. The size of the *buffer* shall be determined by the *city manager* to eliminate or minimize the risk of property damage, death or injury resulting from *landslides* caused in whole or part by the *development*, based upon review of and concurrence with a *critical area* report prepared by a *qualified professional*.

~~a~~i. Minimum *Buffer*. The minimum *buffer* shall be equal to the height of the slope, as measured from the toe to the top, or 50 feet, whichever is greater.

~~b~~ii. *Buffer* Reduction. The *buffer* may be reduced to a minimum of ~~10~~25 feet when a *qualified professional* demonstrates to the *city manager*'s satisfaction based upon review of a special study that the reduction will adequately protect the proposed *development*, adjacent *developments* and *uses* and the subject *critical area* through slope stability improvements or structural means.

~~c~~iii. Increased *Buffer*. The *buffer* may be increased where the *city manager* determines a larger *buffer* is necessary to prevent risk of damage to proposed and existing *development*.

~~d. Building *Setback*. A building *setback* is required from the edge of the *buffer* per KMC 18.55.270.~~

~~5~~b. *Vegetation* Shall Be Retained. Unless otherwise provided or as part of an approved *alteration*, removal of *vegetation* from a~~n *erosion or*~~ *landslide hazard area* or related *buffer* shall be prohibited.

~~8~~c. Point Discharges. Point discharges from surface water facilities and roof drains onto or upstream from a~~n *erosion or*~~ *landslide hazard area* shall be prohibited except as follows:

~~a~~i. Conveyed via continuous storm pipe downslope to a point where there are no ~~*erosion hazard areas*~~*landslide hazard areas* downstream or downslope from the discharge;

~~b~~ii. Discharged at flow durations matching predeveloped conditions, with adequate energy dissipation, into existing channels that previously conveyed stormwater runoff in the predeveloped state; or

~~c~~iii. Dispersed discharge upslope of the steep slope onto a low-gradient undisturbed *buffer* demonstrated to be adequate to infiltrate all surface and stormwater runoff, and where it can be demonstrated that such discharge will not increase the saturation of the slope.

~~7~~d. Utility Lines and Pipes.

i. Utility lines and pipes shall be permitted in ~~*erosion* and~~ *landslide hazard areas* only when the *applicant* demonstrates that no other *practical alternative* is available. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying landslide. It must be demonstrated by the *applicant* that a utility line within the *landslide hazard area* has been designed in a manner that does not negatively impact the stability of the slope, minimizes or eliminates the potential for rupture or failure, and assures that in the event of failure there will not be a life/safety risk. Stormwater conveyance shall be allowed only through a high-density polyethylene pipe with fuse-welded joints, or similar product that is technically equal or superior. Automatic shutoff valves shall be provided on petroleum or natural gas lines to isolate the landslide area.

~~b~~ii. Access roads ~~and~~to serve utilities may be permitted within a *landslide hazard area* and associated *buffer* if the *City* determines that no other feasible alternative exists, and the road is designed so as not to lower the stability of the slope. Such a road shall not be used for general ingress/egress to the property unless otherwise approved as part of a *development proposal*.

~~6~~e. Seasonal Restriction. Permitted ~~*Clearing*~~site development work shall be allowed only from May 1st to October 1st of each year; provided, that the ~~*C*~~*city manager* may extend or shorten the dry season on a case-by-case basis depending on actual weather conditions, except that timber harvest, not including brush clearing or stump removal, may be allowed pursuant to an approved *forest practice* permit issued by the *City* or the Department of Natural Resources. An exception may be granted by the *city manager* for emergency repair of structures or landslides when waiting for the clearing window will (1) create a life-threatening risk, (2) do additional damage to the *structure*, or (3) damage adjacent property or *structures*.

f. Trails. Trails shall be permitted when all of the following conditions have been met:

i. The proposed trail shall not decrease the existing factor of safety within the *landslide hazard area* or any required *buffer*;

ii. The proposed trail is for non-vehicular use only, and is a maximum of 4 (four) feet wide;

ii. The trail shall not be sited within a *landslide hazard area* or associated *buffer* when there is such a high risk of *landslide* activity that the use of the trail would be hazardous; and

iv. The trail shall be designed and constructed using an engineered drainage system or other methods to prevent the trail surface from becoming a drainage course.

~~9~~g. Subdivisions. The division of land in *landslide hazard areas* and associated *buffers* is subject to the following:

~~a~~i. Land that is located wholly within a *landslide hazard area* or its minimum *buffer* as required by 18.55.650.B.1.a KMC ~~may~~shall not be subdivided.

ii. Land that is located partially within a *landslide hazard area* or its minimum *buffer* may be divided; provided, that each resulting *lot* has sufficient buildable area outside of, and will not affect, or be affected by, the *landslide hazard area* or its *buffer*~~; and~~. For single-family residential subdivisions and short subdivisions on sites in the R-4 zone located partially within a *landslide hazard area* and its minimum *buffer*, minimum lot size in the area outside of the *landslide hazard area* and its *buffer* may be reduced to 5,400 sq.ft. with no limitation on the percentage of smaller lots, regardless of KMC 18.21.030 footnote 16. These smaller lots shall be located so as to have the least impact on surrounding properties in terms of consistency of *street frontages* and privacy of abutting properties and the lot area shall exclude access easements and access panhandles.

iii. Access roads shall be allowed within a *landslide hazard area* and associated *buffer* only if the *City* determines that no other feasible alternative exists, and the road is designed so as not to lower the stability of the slope.

~~10~~h. Prohibited *Development*. On-site sewage disposal systems, including drain fields, shall be prohibited within *landslide hazard areas* and related *buffers*.

2. High Landslide Hazard Areas – Additional Standards.

a. No new *alteration* shall be permitted in a high *landslide hazard area* unless approved as a *reasonable use* exception, KMC 18.55.180.

b. Modifications to a previously approved *alteration*, including remodeling of an existing residence, in a high *landslide hazard area* may be permitted only if a *critical areas* report is submitted demonstrating that the proposal is determined to be safe as sited and designed and under anticipated conditions by a qualified engineer, or engineering geologist, as appropriate, licensed in the State of Washington.

3. Moderate Landslide Hazard Areas – Additional Standards.

~~4~~a. Design Standards. *Alterations* of a moderate *landslide hazard area* and/or its *buffer* may only occur for activities for which a critical areas report is submitted. *Alterations* ~~within an *erosion hazard area, landslide hazard area* and/or *buffer*~~ shall be designed to meet the following basic requirements unless it can be demonstrated that an alternative design that deviates from one or more of these standards provides greater long-term slope stability while meeting all other provisions of this ~~chapter~~article. The requirement for long-term slope stability shall exclude designs that require regular and periodic maintenance to maintain their level of function. The basic development design standards are:

~~a~~i. The proposed *development* shall not decrease the factor of safety for *landslide* occurrences below the limits of 1.5 for static conditions and 1.2 for dynamic conditions. Analysis of dynamic conditions shall be based on a minimum horizontal acceleration as established by the current version of the International Building Code;

~~c~~ii. *Structures* and improvements shall minimize *alterations* to the natural contour of the slope and foundations shall be tiered where possible to conform to existing topography;

~~d~~iii. *Structures* and improvements shall be located to preserve the most critical portion of the *site* and its natural landforms and *vegetation*;

~~e~~iv. The proposed *development* shall not decrease slope stability on adjacent properties or result in greater risk or a need for increased *buffers* on neighboring properties;

~~f~~v. The use of *retaining walls* that allow the maintenance of existing natural slope area is preferred over graded artificial slopes; and

~~g~~vi. *Development* shall be designed to minimize impervious *lot* coverage.

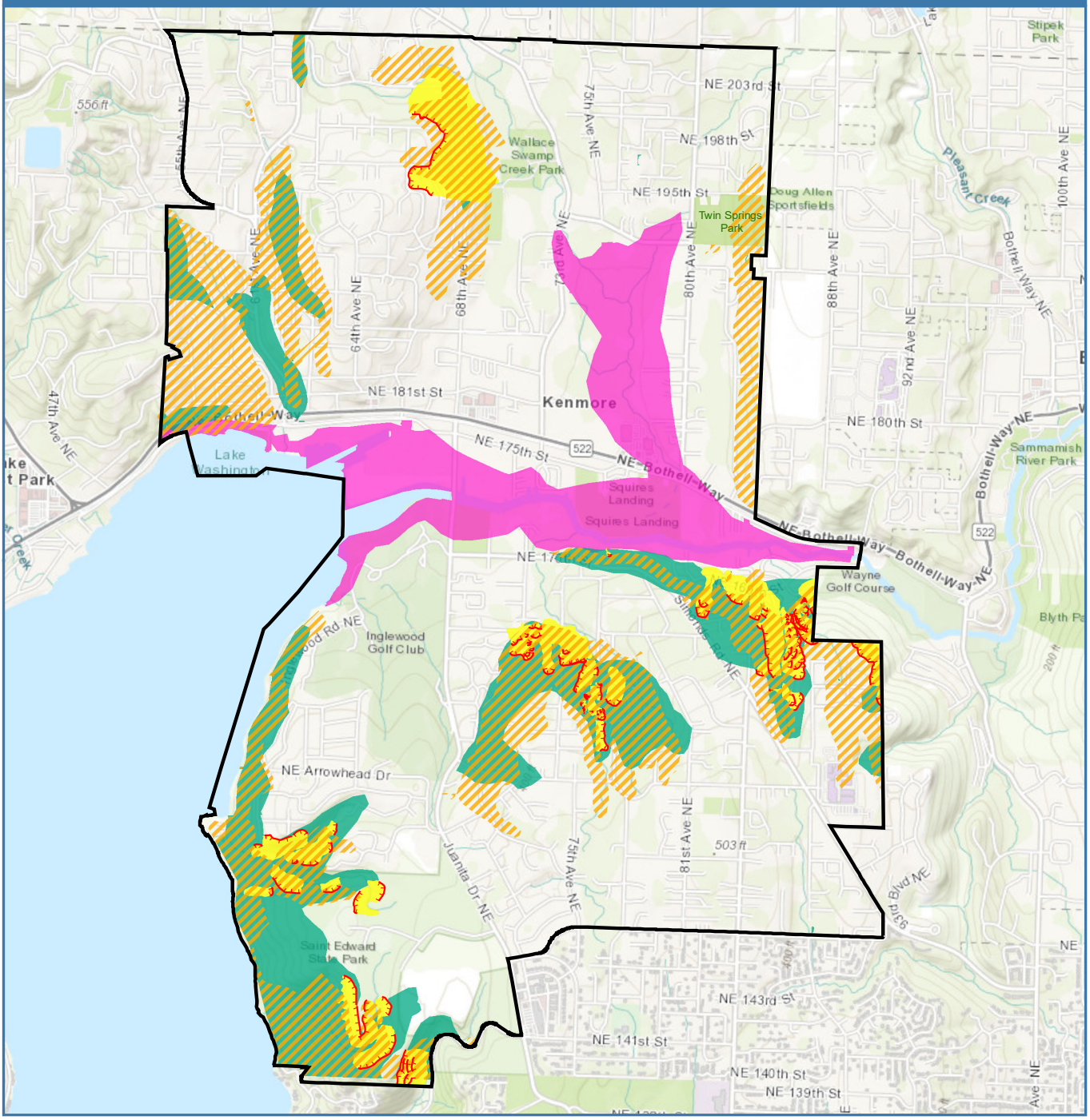
~~11~~C. **Slopes Created by Previous *Grading*.** Artificial slopes meeting the criteria of a *landslide hazard area* based on slope steepness and height that were created through previous permitted *grading* or are legally non-conforming may be further altered or graded provided the applicant provides information from a *qualified professional* demonstrating that the naturally occurring slope, as it existed prior to the permitted *grading*, did not meet any of the criteria for a *landslide hazard area* and that a new hazard will not be created. Previously graded slopes meeting the criteria of a *landslide hazard area* that were not permitted or were illegally created are considered to be *landslide hazard areas*.

~~B~~D. *Seismic Hazard Areas*. Activities proposed to be located in *seismic hazard areas* shall meet the standards of KMC 18.55.640, Performance standards – General requirements, and the International Building Code. Development or renovation of property in designated tsunami or seiche zones, when identified by the USGS or Washington State Department of Natural Resources, may be allowed if taking into account *Designing for Tsunamis, Seven Principles for Planning and Designing for Tsunami Hazards* (National Tsunami Hazard Mitigation Program, 2001) and following the regulations for floodways.

~~C~~E. Other *Hazard Areas*. Activities on *sites* ~~containing or~~ adjacent to ~~other~~ *geologically hazardous areas* shall meet the standards of KMC 18.55.640, Performance standards – General requirements.

Figure LU-11

Interim Geological Hazard Areas



Kenmore City Boundary
WA DNR - Scarps
Erosion Hazard Areas
Seismic Hazard Areas

Landslide Hazard Areas
High Hazard
Moderate Hazard

N
0 0.25 0.5
Miles

Sources: City of Kenmore, 2018.
The information included on this map has been compiled by City of Kenmore staff from a variety of sources and is subject to change without notice. City of Kenmore makes no representation or warranties, expressed or implied, as to the accuracy, completeness, timeliness, or rights to the use of such information. This document is not intended for use as a survey product. City of Kenmore shall not be liable for any general, special, indirect, incidental, or consequential damages including, but not limited to, lost revenues or lost profits resulting from the use or misuse of the information contained on this map. Any sale of this map or information on this map is prohibited except by written permission of City of Kenmore.
Map Date: November 2018

ATTACHMENT 3

THIS IS AN ENTIRELY NEW SECTION - REVISED

Chapter 18.55
CRITICAL AREAS

Sections:

Article XX. Groundwater Susceptibility and Critical Aquifer Recharge Areas

18.55.800 Designation of groundwater susceptibility and critical aquifer recharge areas.

18.55.810 Critical Areas Report.

Article XX. Groundwater Susceptibility and Critical Aquifer Recharge Areas

18.55.800 Designation of groundwater susceptibility and critical aquifer recharge areas.

Groundwater recharge areas play an important role in groundwater quality and the general environmental health of the area in which they are located. Although no critical aquifer recharge areas are designated within the city limits at this time, the City understands the importance of protecting its groundwater resources. For example, groundwater can be an important source of water in City streams and wetlands, particularly during dry summer months, which supports associated vegetation communities and aquatic habitat. Some communities rely on groundwater for irrigation or drinking water. In the City, areas susceptible to groundwater contamination have been designated using the City of Kenmore Groundwater Susceptibility Map, which was developed based on the *Guidance Document for the Establishment of Critical Aquifer Recharge Area Ordinances* (Ecology, 1998). The map is the result of combining the ratings of a variety of factors for areas throughout the City including: geologic unit (i.e. depositional environment), near surface permeability (based on the county soil map), and depth to groundwater. The map identifies areas with “moderate” or “high” susceptibility to groundwater contamination.

18.55.810 Critical Areas Report.

A. The purpose of a hydrogeologic assessment report is to evaluate actual hydrogeologic conditions and determine a site’s proximity to vulnerable groundwater resources. This information then is used to evaluate the likely impacts of proposed activities and to determine appropriate construction practices, monitoring programs, and other mitigation measures required to ensure achievement of the purpose and intent of these regulations.

B. The information required by the hydrogeologic assessment report should be coordinated with the study and reporting requirements for any other critical areas located on the site.

C. The hydrogeologic assessment report shall be prepared by a qualified professional who is a hydrogeologist, geologist, or engineer licensed in the State of Washington and has experience in preparing hydrogeologic assessments.

D. The City of Kenmore Groundwater Susceptibility Map, referenced under KMC 18.55.800, identifies the level of evaluation required at a particular site within the City.

1. Level One Hydrogeological Assessment – Areas of Moderate Susceptibility.

   a. A level one hydrogeologic assessment shall be required for any of the following non-residential proposed activities at sites located within groundwater susceptibility zones that are rated as "Moderate Susceptibility:"

      ~~i. Activities that divert, alter, or reduce the flow of surface or groundwaters, including dewatering, or otherwise reduce groundwater recharge.~~

      i. The storage, handling, treatment, use, production, recycling, or disposal of hazardous substances, other than hazardous household substances used according to the directions specified on the packaging for domestic applications. See RCW 70.105.010.

      ii. The use of injection wells, including on-site septic systems, except those domestic septic systems releasing less than 14,500 gallons of effluent per day and that are limited to a maximum density of one system per acre.

      iii. Any other activity determined by the *city manager* likely to have an adverse impact on groundwater quality or quantity, or on groundwater recharge.

   b. A level one hydrogeologic assessment shall include the following site and development-related information at a minimum:

      i. Information regarding geologic and hydrogeologic characteristics of the site, including the permeability of the unsaturated zone (soils located above the groundwater table) based on existing data.

      ii. Groundwater depth, flow direction, and gradient based on available information.

iii. Location of wells and springs within 1,300 feet of the project area.

iv. Location of other critical areas, including surface waters, within 1,300 feet of the project site.

v. Available historic water quality data for the area to be affected by the proposed activity.

vi. Best Management Practices (BMPs) proposed to be utilized.

2. Level Two Hydrogeologic Assessment – Areas of High Susceptibility.

a. A level two hydrogeologic assessment shall be required for any of the following non-residential, proposed activities at sites located within groundwater susceptibility zones that are rated as "High Susceptibility:"

~~i. Activities that divert, alter, or reduce the flow of surface or groundwaters, including permanent dewatering that reduces groundwater recharge.~~

i. The storage, handling, treatment, use, production, recycling, or disposal of hazardous substances, other than hazardous household substances used according to the directions specified on the packaging for domestic applications. See RCW 70.105.010.

ii. The use of injection wells, including on-site septic systems, except those domestic septic systems releasing less than 14,500 gallons of effluent per day and that are limited to a maximum density of one system per acre.

iii. Any other activity determined by the city manager likely to have an adverse impact on groundwater quality or quantity, or on groundwater recharge.

b. A level two hydrogeologic assessment shall include the following site and proposal-related information at a minimum, in addition to the requirements for a level one hydrogeologic assessment:

i. Historic water quality and elevation data for the area to be affected by the proposed activity compiled for at least the previous five-year period, unless otherwise approved by the *city manager*.

ii. Groundwater monitoring plan provisions.

iii. Discussion of the effects of the proposed project on groundwater quality and quantity, including:

1. Predictive evaluation of groundwater withdrawal effects on nearby wells and surface water features.

2. Predictive evaluation of contaminant transport based on potential releases to groundwater.

iv. Identification of the type and quantities of any hazardous materials that will be stored, handled, treated, used, produced, recycled, or disposed of on the site, including but not limited to materials, such as elevator lift/hydraulic fluid, hazardous materials used during construction, materials used by the building occupants, proposed storage and manufacturing uses, etc.

v. Proposed methods of storing any of the above substances, including containment methods to be used during construction and/or use of the proposed facility.

vi. Proposed plan for implementing protection standards during construction.

vii. A spill prevention, control and countermeasure (SPCC) plan that identifies equipment and/or structures that could fail, resulting in an impact. Spill plans shall include provisions for regular inspection, repair, and replacement of structures and equipment that could fail.

viii. A discussion of past environmental investigations, sampling, spills, or incidents that may have resulted in or contributed to contaminated soil or groundwater at the site. Attach copies of all historical and current reports, and sampling results.

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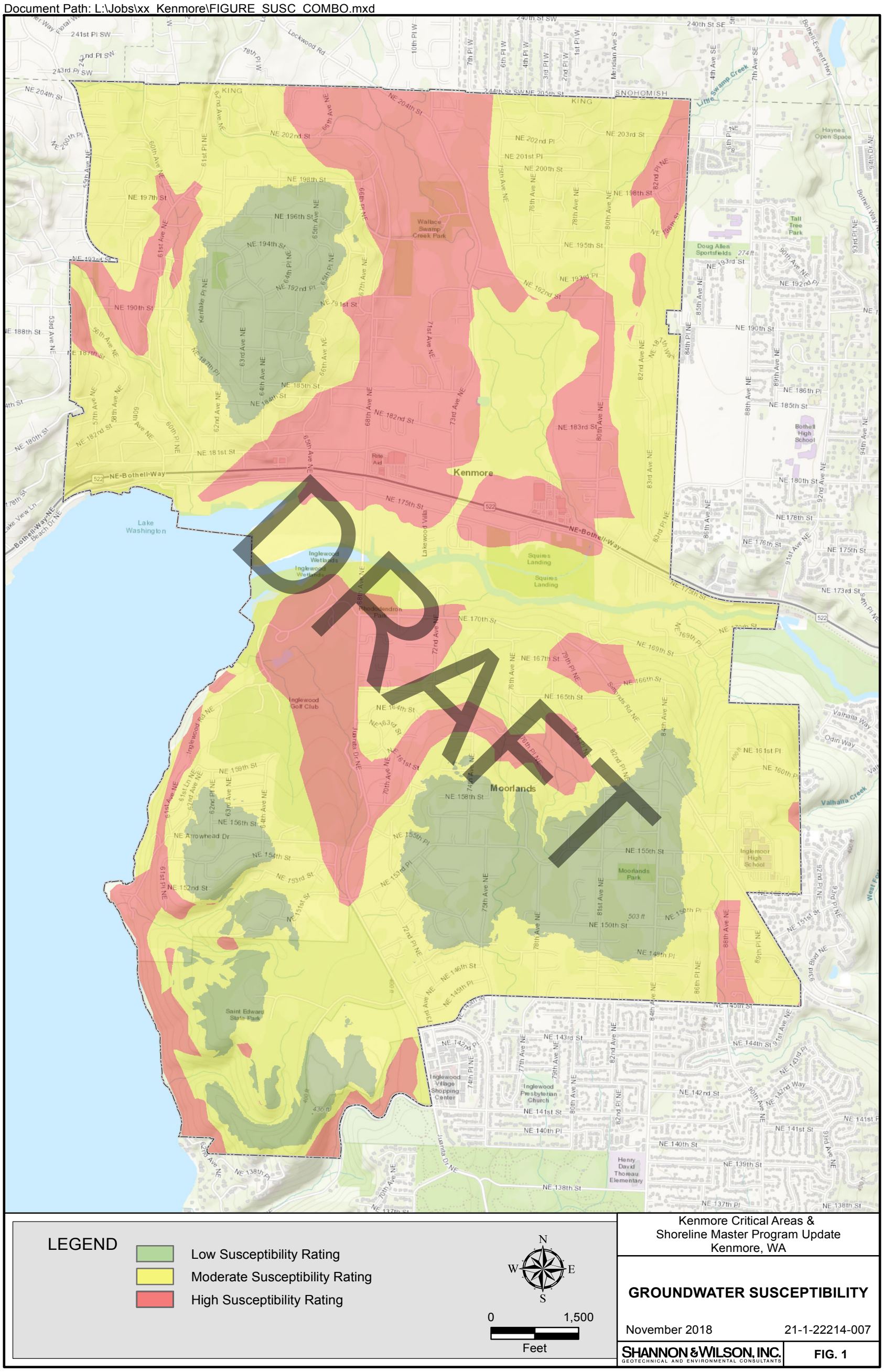

Kenmore Critical Areas & Shoreline Master Program Update
Kenmore, WA

GROUNDWATER SUSCEPTIBILITY

November 2018 21-1-22214-007

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 1