



MEMORANDUM

To: Planning Commission

From: Teresa Swan, Senior Planner
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Paul Stewart, Deputy Director of Planning

Date: September 2, 2009

Subject: Kirkland's Shoreline Master Program Update (SMP)
File No. ZON06-00017

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I. RECOMMENDATION

Staff recommends that the Planning Commission complete its deliberation on the proposed SMP update and make a recommendation to the City Council.

II. BACKGROUND

On August 27, 2009, the Planning Commission deliberated on the Shoreline Master Program update and then continued the hearing to their September 10th meeting to accept written comments through August 31, 2009.

At the August 27, 2009 meeting, the Planning Commission went through the issues highlighted by staff and the staff recommended changes to Chapter 83 that addressed some of the recent public comments, including the Kirkland Lakeshore Association (KLA). In the process of formulating its recommendation, the Planning Commission agreed on the key provisions in Chapter 83 for setbacks, nonconformances, piers and

docks, shoreline stabilization and vegetation. The Planning Commission also agree on the staff's revised approach to tree replacement in the shoreline setback, but made one change by requiring 40 square feet of riparian vegetation for trees 12" in diameter or smaller while retaining the proposed 80 square feet of riparian vegetation for trees greater than 12" in diameter.

One remaining issue that the Planning Commission discussed but did not make a final decision on is whether to require a **minimum dimension for the required riparian vegetation area** for tree replacement. The Commission will want to discuss this issue at its September 10, 2009 meeting.

Concerning a minimum dimension for the riparian area as part of the replacement tree requirement, Amy Summe of the Watershed Company commented that a more square or round shape would have a higher ratio of interior space to circumference that would more of a "buffer" for wildlife using the interior, but a longer shape would provide the beginnings of a corridor for wildlife movement. At the scale of 40 and 80 square feet though, she thought that a minimum dimension would be significant. Amy would be more interested in specifying minimum composition for that space rather than a dimension – e.g., perhaps 60% of space occupied by shrubs to avoid the entire square footage being just groundcover.

Staff would recommend Amy's approach in requiring 60% of the riparian area planted with native shrubs, but also requiring a minimum dimension of 3 feet to have sufficient space for the shrubs. These two changes are reflected in Attachment 1.

One additional issue that the Houghton Community Council raised was concern about the **landscaping requirements for waterfront parks** relating to views, pedestrian access and existing conditions. As with all other uses except water dependant uses such as swimming and boating areas, the requirement is for planting along 75% of the water's edge. This means that except for the swimming and boating areas in waterfront parks, a 5'-10' wide landscaping would be required along the water's edge. The Parks Department is concerned about a rigid standard that may not be feasible or suitable for every waterfront park. Staff proposes the following additional text to Section 83.400.3.a reflected in Attachment 1:

For public parks, the required native vegetation area of 75% may be modified for the remaining portions of the nearshore that do not contain a swimming beach, boating area or other similar water dependent activities described in KZC 83.400.3.a above if it can be demonstrated not to be feasible given public access, existing conditions or maintaining public views, and if the vegetation area is provided elsewhere in the park.

Staff requests that the Planning Commission consider this additional text to address waterfront parks.

III. RESPONSE TO DEPARTMENT OF ECOLOGY COMMENTS

The Department of Ecology sent preliminary comments dated July 10, 2009 to the draft SMP update. These comments were provided in the packet for the July 27, 2009 public

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hearing. Changes have been made to Chapter 83 in response to the comments.

On August 20, 2008, the Department of Ecology sent additional comments after further review that are included within the original comment letter (see Attachment 3).

The following is a summary of the three new comments with a staff response to each comment:

Comment 1: Definition of "**appurtenances**" is too broad for Ecology to support for purposes of interpreting exempt activities.

Staff Response: We will work with Ecology on this issue. Joe Burcar, our Ecology coordinator, is on vacation at this time so we will discuss the issue when he returns. It may result in some minor wordsmithing of the definition.

Comment 2: Relook at the **Flood Hazard** provisions in Section 83.530 and either: 1) more narrowly scope the sections of the Kirkland Municipal Code that would be adopted by reference, or 2) copy the specific provisions into Section 83.530 needed to meet the WAC requirements. Sections referenced outside of the SMP may be subject to future Ecology review if amended.

Staff Response: Staff will review the state Guidelines and Section 83.530 to see what text needs to be provided. Minor changes may need to be made. Since the Flood Hazard section does not contain policy issues, staff will make this change prior to forwarding Chapter 83 to the City Council.

Comment 3: **Public access** needs to be required for subdivisions of more than 4 lots in the Residential-L environment (single family area north of the CBD) where it is not currently required either under the existing or proposed SMP. However, Ecology has suggested two options: doing a study showing that public access is not feasible on the applicable lots or allowing an alternative public access to the standard shoreline pedestrian trail, such as a viewing platform.

Staff Response: Upon initial review, it appears that only 2 lots in the Residential-L environment have adequate land area to subdivide into 5 lots or more. Staff will look at these lots to see if some type of public access is feasible. Given the topography and access to these two lots, it may be unlikely that public access is feasible.

IV. RESPONSE TO PUBLIC COMMENTS

A. Muckleshoot Indian Tribe

Karen Walter of the Muckleshoot Indian Tribe provided comments on August 17, 2009. The comment letter was included in the Planning Commission packet for the meeting of August 27, 2009 meeting. Staff did not have time to respond to the comment letter before the last meeting.

Attachment 4 contains a response to the comment letter. Most of the comments from the Tribe ask for mitigation and regulations to achieve enhancement that go beyond the No Net Loss provisions and the mandate of the state Guidelines. However, staff does recommend making some minor changes to the shoreline Goals and Policies (see Attachment 2) and some minor changes to Chapter 83 (see Attachment 2) in response to other issues in the comment letter.

B. Dave Douglas, Waterfront Construction

Dave Douglas submitted a letter dated August 27, 2009 (see Attachment 5). Staff distributed and went through the letter at the Planning Commission meeting, and provided responses to his comments. Most of his comments have already been addressed in the draft Chapter 83, but three comments have been incorporated into Attachment 1 found in Section 83.270:

- Adding **minimum water depth for pier ells** to the table of what can be deviated from the dimensional standards for single family piers if approved administratively after state and federal agencies approval.
- Deleting **maximum height requirement for a boat canopy** above a pier from the table for single family piers.
- Deleting the **Department of Ecology** from reviewing permits for piers and docks in the administrative approval table. They only review piers when part of an application for Variances and Conditions Use permits.

C. Kirkland Lakeshore Association (KLA)

The KLA has submitted a letter dated August 31, 2009 (see Attachment 6). The KLA summarizes its continuing concerns about:

- Retaining the **existing shoreline setback** requirements rather than adopting new setback requirements.
- Allowing **nonconforming structures** to be rebuilt in their existing locations and not be brought into conformance.
- Allowing replacement of **existing hard stabilization structures** outright without a needs assessment.
- Wanting a cap on **mitigation costs** and adding cost in the definition of "feasible".
- Not requiring replacement of **fallen trees** in the shoreline setback.

Concerning the **shoreline setback**, the Planning Commission has spent considerable time reviewing the existing setback conditions along the shoreline and determining that the existing setback regulations would not meet the No Net Loss provision. The existing minimum 15 foot wide setback standard does not provide adequate area for riparian vegetation to provide sufficient ecology function. Also, as existing primary structures that are located further back from the OHWM are torn down and rebuilt closer to the shoreline, the cumulative impact along the entire shoreline would result in not meeting

the No Net Loss provision.

Concerning **non-conforming structures**, if these structures are allowed to be rebuilt while other existing structures located further back from the OWHM are torn down and rebuilt closer to the shoreline, the cumulative impact along the entire shoreline again results in not meeting the No Net Loss provision. One option would be to establish the setback required based on the exact existing conditions as of the City's 2006 shoreline inventory, *such that no existing structure could move closer to the shoreline*, even if the structure far exceeds the existing setback requirement. In other words, keep the status quo. This concept was raised with the KLA, but they thought it unfair to the property owners who have homes far back from the shoreline.

Concerning **hard shoreline stabilization**, the Guidelines specifically state that major repair or replacement of hard stabilization cannot occur unless a need assessment confirms that stabilization is needed to protect primary structures and that a soft stabilization structure is not an option. It is highly unlikely that Ecology would approve the SMP update unless we follow the state Guidelines.

Concerning **mitigation cost**, the state has a definition for feasible which the SMP update reflects. The definition does not include cost. A cap to mitigation could likely result in not meeting no net loss and mitigation sequencing. A cap on mitigation has not been applied to other environmental impact standards in the city. What is a feasible cost varies by property owner, the nature of project and the extent of required mitigation. In response to the KLA concerns, provisions have been added to Chapter 83 in several sections that allow for alternative mitigation proposals that are less costly, provided that the mitigation still results in meeting the No Net Loss provision.

Lastly, concerning **fallen trees**, the Planning Commission decided that fallen trees must be replaced to meet the No Net Loss provision.

D. Other Comment Letters

Staff has already provided past responses to the general issues in the remaining comment letters (see Attachments 7-12. Note that Dick Sandaas' and Dave Douglas' letters both dated September 1, 2009 were received after the deadline for submitting comments.)

V. **NEXT STEPS**

The Houghton Community Council will meet on September 14, 2009, to make its final recommendation. Staff will review the Planning Commission's final recommendation at that meeting.

The City Council is scheduled to review the proposed SMP at a special study session on October 22, 2009. Action by the Council is expected to occur by the end of the year.

In taking action, the City Council would adopt a "resolution of intent" to adopt the SMP. Following action by the City Council, the SMP update will be submitted to Houghton

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Community Council for action. After this action by the City, the update will be submitted to the Department of Ecology for their consideration.

The Washington Department of Ecology (DOE) must approve all master programs before they become effective. These steps are outlined in WAC 173-26-100 through 173-100-120. Following submittal of the master program, DOE determines if the submittal is complete and if it is not, they identify the deficiencies that need to be addressed. If the SMP update is deemed complete, DOE has a 30-day comment period and may conduct its own public hearing during that comment period.

Following the comment period, DOE would then request a response from the City on the comments. After receiving the response, DOE makes written findings and conclusions in reaching its determination of consistency with the statutes and applicable guidelines. If approved, then the SMP is effective. If not approved, DOE provides required and recommended changes for the city to consider and adopt as appropriate. The City can then amend the SMP based on Ecology's comments or submit an alternative proposal. DOE can either deny the alternative proposal or at the request of the City, start a new review and approval process. The master program takes effect when it is approved or adopted by rule by the Department of Ecology.

VI. ATTACHMENTS

1. Final Draft of Chapter 83
2. Changes to the Shoreline Goals and Policies
3. Revised comments from the Department of Ecology's dated August 20, 2009
4. Response to the Muckleshoot Indian Tribe's letter dated August 17, 2009
5. Public comment letters from Dave Douglas dated August 27, 2009
6. Public comment letter from KLA dated August 31, 2009
7. Public comment letter from Dave Douglas dated August 25 and August 26, 2009
8. Public comment letter from Paul Birkeland dated August 13, 2009
9. Public comment letter from Rodney Waldbaum dated August 19, 2009
10. Public comment letter from Robert Conner dated August 20, 2009
11. Public comment letter from Richard Sandaas dated September 1, 2009 (after comment deadline)
12. Public comment letter from Dave Douglas dated September 1, 2009 (after comment deadline)

cc: File No. ZON06-00017, Sub-file #1

Chapter 83 – SHORELINE MANAGEMENT

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Attachment 1
PC/HCC Final Draft 9/09

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- 83.530 Flood Hazard Reduction
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- 83.550 Nonconformances
- 83.560 Emergency Actions

Authority and Purpose

83.10 Authority

1. This Chapter is adopted as part of the shoreline master program for the city. It is adopted under the authority of RCW Chapter 90.58 and WAC Chapter 173-26.

83.20 Applicability

1. The requirements of this Chapter apply to uses, activities and development within shoreline jurisdiction.
2. Designation – The waters of Lake Washington and shorelands associated with Lake Washington are designated as shorelines of statewide significance.
3. Shoreline Jurisdiction
 - a. The provisions of this Chapter shall apply to all shorelines of the state, all shorelines of statewide significance, and shorelands.
 - b. Lake Washington, its underlying land, associated wetlands, and those lands extending landward 200 feet from its OHWM shall be within shoreline jurisdiction.
 - c. Shoreline jurisdiction does not include buffer areas for wetlands or streams that occur within shoreline jurisdiction, except those buffers contained within lands extending landward 200 feet from the OHWM of Lake Washington.

83.30 Purpose and Intent - The Kirkland Shoreline Master Program, consisting of this Chapter, the Shoreline Element Chapter of the Comprehensive Plan and the Restoration Plan, has the following purposes:

1. Enable current and future generations to enjoy an attractive, healthy and safe waterfront.
2. Protect the quality of water and shoreline natural resources to preserve fish and wildlife and their habitats.
3. Protect the City's investments as well as those of property owners along and near the shoreline.
4. Efficiently achieve the SMP mandates of the State.
5. In interpreting the provisions of this Chapter, preference shall be given in the following order to uses that:
 - a. Recognize and protect the statewide interest over local interest;
 - b. Preserve existing natural areas along the shoreline;
 - c. Result in long term over short term benefit;
 - d. Protect the resources and ecology of the shoreline;
 - e. Increase public access to publicly owned areas of the shorelines;
 - f. Increase recreational opportunities for the public in the shoreline;
 - g. Provide for any other element as defined in RCW [90.58.100](#) deemed appropriate or necessary.

83.40 Relationship to other Codes and Ordinances

1. The shoreline regulations contained in this Chapter shall apply as an overlay and in addition to zoning, land use regulations, development regulations, and other regulations established by the City.

2. In the event of any conflict between these regulations and any other regulations of the City, the regulations that provide greater protection of the shoreline natural environment and aquatic habitat shall prevail.
3. Shoreline Master Program policies, found in the City's Comprehensive Plan, establish intent for the shoreline regulations.

83.50 Interpretation

1. General – The Planning Director may issue interpretations of any provisions of this Chapter as necessary to administer the shoreline master program policies and regulations. The Director shall base his/her interpretations on:
 - a. The defined or common meaning of the words of the provision; and
 - b. The general purpose of the provision as expressed in the provision; and
 - c. The logical or likely meaning of the provision viewed in relation to the Washington State Shoreline Management Act (SMA), including the purpose and intent as expressed in chapter 90.58 RCW and the applicable guidelines as contained in WAC 173-26, as well as the Shoreline Element Chapter of the Comprehensive Plan.

Any formal written interpretations of shoreline policies or regulations shall be submitted to the Department of Ecology for review.

2. Effect – An interpretation of this code will be enforced as if it is part of this code.
3. Availability – All interpretations of this code, filed sequentially, are available for public inspection and copying in the Planning Department during regular business hours. The Planning Official shall also make appropriate references in this code to these interpretations.

83.60 Liberal Construction

1. As provided for in RCW 90.58.900, the Shoreline Management Act is exempted from the rule of strict construction; the Act and this Shoreline Master Program shall therefore be liberally construed to give full effect to the purposes, goals, objectives, and policies for which the Act and this Chapter were enacted and adopted, respectively.

83.70 Severability

1. The standards, procedures, and requirements of this Chapter are the minimum necessary to promote the health, safety, and welfare of the residents of Kirkland. The City is free to adopt more rigorous or different standards, procedures, and requirements whenever this becomes necessary.
2. The Act and this Chapter adopted pursuant thereto comprise the basic state and City law regulating use of shorelines. In the event provisions of this Chapter conflict with other applicable City policies or regulations, the more restrictive shall prevail. Should any section or provision of this Chapter be declared invalid, such decision shall not affect the validity of this Chapter as a whole.

Definitions

83.80 Definitions

For the purposes of this Chapter the following terms shall have the meaning ascribed to them below. Terms not defined in this section shall be defined as set forth in Chapter 5 KZC.

1. **Act:** The Washington State Shoreline Management Act, chapter [90.58](#) RCW.
2. **Agriculture:** Agricultural uses and practices including, but not limited to: Producing, breeding, or increasing agricultural products; rotating and changing agricultural crops; allowing land used for agricultural activities to lie fallow in which it is plowed and tilled but left unseeded; allowing land used for agricultural activities to lie dormant as a result of adverse agricultural market conditions; allowing land used for agricultural activities to lie dormant because the land is enrolled in a local, state, or federal conservation program, or the land is subject to a conservation easement; conducting agricultural operations; maintaining, repairing, and replacing agricultural equipment; maintaining, repairing, and replacing agricultural facilities, provided that the replacement facility is no closer to the shoreline than the original facility; and maintaining agricultural lands under production or cultivation
3. **Aquaculture:** The cultivation of fish, shellfish, and/or other aquatic animals or plants, including the incidental preparation of these products for human use.
4. **Aquatic:** Those areas waterward of the OHWM.
5. **Appurtenance:** For the purpose of an exemption of a single family residence, also referred to as a detached dwelling unit on one lot, and its associated appurtenances from a substantial development permit, an appurtenance includes those listed under WAC 173-14-040 as well as tool sheds, greenhouses, swimming pools, spas, accessory dwelling units and other accessory structures common to a single family residence located landward of the OHWM and the perimeter of a wetland.
6. **Accessory Dwelling Unit:** See Chapter 5 KZC.
7. **Average Parcel Depth:** The average of the distance from the OHWM to the public right-of-way or vehicular access easement, whichever provides direct access to the subject property, as measured along the side property lines or the extension of those lines where the water frontage of the subject property ends, the center of the OHWM of the subject property and the quarter points of the OHWM of the subject property. At the northern terminus of the 5th Ave West private access easement, the average parcel depth shall be measured from the OHWM to the west side of the public pedestrian access easement providing access to Waverly Beach Park. See Plate 19.
8. **Average Parcel Width:** The average of the distance from the north to the south property lines as measured along the OHWM and the front property line, or along the east and west property lines if the parcel does not abut Lake Washington.
9. **Bioengineering:** Project designs or construction methods which use live woody vegetation or a combination of live woody vegetation and specially developed natural or synthetic materials to establish a complex root grid within the existing bank which is resistant to erosion, provides bank stability, and maintains a healthy riparian environment with habitat features important to fish life. Use of wood structures or limited use of clean angular rock may be allowable to provide stability for establishment of the vegetation.
10. **Boat:** Any contrivance used or capable or being used as a means of transportation on water, except for cribs or piles, shinglebolts, booms or logs, rafts of logs, and rafts of lumber.
11. **Boat House:** An overwater structure designed for the storage of boats, but not including boatlift canopies.
12. **Boat Launch:** Graded slopes, slabs, pads, planks, or rails used for launching boats by means of a trailer, hand, or mechanical device.

- 13. Boat Lift:** Lifts for motorized boats, kayaks, canoes and jet skis. Includes floating lifts that are designed to not contact the substrate of the Lake; ground-based lifts that are designed to be in contact with or supported by the substrate of the Lake; and suspended lifts that are designed to be affixed to the existing overwater structure with no parts contacting the substrate.
- 14. Boating Facilities:** Facilities providing boat moorage space, fuel, or other commercial services. As used in this Chapter, boating facilities refer to the following use listings: Piers, Docks, Moorage Buoys, Boatlifts and Canopies serving Attached, Stacked and Detached Dwelling Units and Marinas and Moorage Facilities Associated with Commercial Uses.
- 15. Breakwater:** Protective structures which are normally built offshore to provide protection from wave action.
- 16. Buffer:** The area immediately adjacent to wetlands and streams that protects these sensitive areas and provides essential habitat elements for fish and/or wildlife.
- 17. Buffer Setback:** A setback distance of 10 feet from a designated or modified wetland or stream buffer within which no buildings or other structures may be constructed, except as provided in KZC 83.500.3(b) and 83.510.3(b). The buffer setback serves to protect the wetland or stream buffer during development activities, use, and routine maintenance occurring adjacent to these resources.
- 18. Bulkhead:** A vertical or nearly vertical erosion protection structure placed parallel to the shoreline consisting of concrete, timber, steel, rock, or other permanent material not readily subject to erosion.
- 19. Canopy:** A cover installed as a component of a boatlift.
- 20. Class A Streams:** Streams that are used by salmonids. Class A streams generally correlate with Type F streams as defined in WAC 222-16-030.
- 21. Class B Streams:** Perennial streams (during years of normal precipitation) that are not used by salmonids. Class B streams generally correlate with Type F streams (if used by non-salmonids or they contain fish habitat) or Type Np streams (if they are perennial and do not contain fish habitat) as defined in WAC 222-16-030.
- 22. Class C Streams:** Seasonal or ephemeral streams (during years of normal precipitation) not used by salmonids. Class C streams generally correlate with Type F streams (if used by non-salmonid fish or they contain fish habitat) or Type Ns streams (if they are seasonal and do not contain fish habitat) as defined in WAC 222-16-030.
- 23. Commercial Use:** Includes retail, office services, entertainment, recreation and/or light industrial uses, depending on the location. Retail uses are those which provide goods and/or services directly to the consumer, including service uses not usually allowed within an office use.
- 24. Concession Stand:** A permanent or semi-permanent structure for the sale and consumption of food and beverages and water-related products such as sunscreen, sunglasses, and other similar products. A concession stand may include outdoor seating areas. Indoor seating and associated circulation areas shall not exceed more than 10 percent of the gross floor area of the use, and it must be demonstrated to the City that the floor plan is designed to preclude the seating area from being expanded.
- 25. Conditional Uses:** A use, development, or substantial development that is classified as a conditional use in section 83.170 or which is not classified within the SMP. Those activities identified as conditional uses or not classified in this Master Program must be treated according to the review criteria established in WAC 173-27-160.
- 26. Convalescent Center:** See Chapter 5 KZC.
- 27. Critical Areas:** Critical areas include the following areas and ecosystems: (a) wetlands; (b) areas with a critical recharging effect on aquifers used for potable water; (c) fish and wildlife habitat conservation

areas (streams); (d) frequently flooded areas; and (e) geologically hazardous areas. Kirkland does not contain any critical aquifer recharge areas. Critical areas may also be referred to as sensitive areas.

28. Development: A use consisting of the construction or exterior alteration of structures; dredging; drilling; dumping; filling; removal of any sand, gravel, or minerals; bulkheading; driving of piling; placing of obstructions; or any project of a permanent or temporary nature which interferes with the normal public use of the surface of the waters overlying lands subject to RCW 90.58 at any state of water level.

29. Dock: A structure that floats on the surface of the water, without piling supports, but which is attached to land. Typically used for boat moorage, swimming, public access, and other activities that requires access to deep water.

30. Drainage Basin: A specific area of land drained by a particular Kirkland watercourse and its tributaries.

31. Dredging: The removal, displacement, or disposal of unconsolidated earth material such as sand, silt, gravel, or other submerged materials, from the bottom of water bodies, ditches, or natural wetlands; maintenance dredging and/or support activities are included in this definition.

32. Dry Land Boat Storage: A commercial service providing storage of boats and other boat on the upland portion of a property.

33. Dwelling Unit, Attached: See Chapter 5 KZC.

34. Dwelling Unit, Detached: See Chapter 5 KZC.

35. Dwelling Unit, Stacked: See Chapter 5 KZC.

36. Ecological Functions: The work performed or role played by the physical, chemical, and biological processes that contribute to the maintenance of the aquatic and terrestrial environments that constitute the shoreline's natural ecosystem.

37. Ecological Restoration: See Restore.

38. Ecologically Intact Shoreline: Those shoreline areas that retain the majority of their natural shoreline functions, as evidenced by the shoreline configuration and the presence of native vegetation. Generally, but not necessarily, ecologically intact shorelines are free of structural shoreline modifications, structures, and intensive human uses.

39. Ecosystem-wide Processes: The suite of naturally occurring physical and geologic processes of erosion, transport, and deposition, and specific chemical processes that shape landforms within a specific shoreline ecosystem and determine both the types of habitat that are present and the associated ecological functions.

40. Feasible: An action, such as a development project, mitigation, or preservation requirement, which meets all of the following conditions:

a. The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results;

b. The action provides a reasonable likelihood of achieving its intended purpose; and

c. The action does not physically preclude achieving the project's primary intended legal use.

d. The burden of proving infeasibility is on the applicant in cases where these guidelines require certain actions.

In determining an action's infeasibility, the City may weigh the action's relative public costs and public benefits, considered in the short- and long-term time frames.

41. Ferry Terminal, Passenger-only: A docking facility used in the transport of passengers across a body of water. A ferry terminal may include accessory parking facilities, ticketing booth, and other accessory uses or structures necessary for its operation. A passenger-only ferry terminal does not include provisions for the ferrying of vehicles.

42. Fill: The addition of soil, sand, rock, gravel, sediment, earth-retaining structure, or other material to an area waterward of the OHWM, in wetlands, or on shorelands in a manner that raises the ground elevation or creates dry land.

43. Float: A structure that floats on the surface of the water, which is not attached to the shore, but that may be anchored to submerged land. Floats are typically used for swimming, diving and similar recreational activities.

44. Float Plane Landing and Moorage Facility: A place where commercially operated water-based passenger aircraft arrive and depart. May include accessory facilities, such as waiting rooms, ticketing booths and similar facilities. May be used for private or public purposes.

45. Floodplain: Synonymous with the one hundred year floodplain and means the land susceptible to inundation with a one percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulations maps or a reasonable method that meets the objectives of the Shoreline Management Act.

46. Forest Practices: Any activity conducted on or directly pertaining to forest land and relating to growing, harvesting, or processing timber.

47. Frequently Flooded Areas: All areas shown on the Kirkland Sensitive Areas Maps as being within a 100-year floodplain, as well as all areas regulated by Chapter 21.56 KMC.

48. Gabions: Structures composed of masses of rocks or rubble held tightly together by wire mesh (typically) so as to form upright blocks or walls. Often constructed as a series of overlapping blocks or walls. Used primarily in retaining earth, steep slopes or embankments, to retard erosion or wave action, or as foundations for breakwaters or jetties.

49. Geotechnical Analysis: See Geotechnical Report.

50. Geotechnical Report: A scientific study or evaluation conducted by a qualified expert that includes a description of the ground and surface hydrology and geology, the affected land form and its susceptibility to mass wasting, erosion, and other geologic hazards or processes, conclusions and recommendations regarding the effect of the proposed development on geologic conditions, the adequacy of the site to be developed, the impacts of the proposed development, alternative approaches to the proposed development, and measures to mitigate potential site-specific and cumulative geological and hydrological impacts on the proposed development, including the potential adverse impacts to adjacent and down-current properties. Geotechnical reports shall conform to accepted technical standards and must be prepared by qualified professional engineers (or geologists) who have professional expertise about the regional and local shoreline geology and processes.

51. Grading: The movement or redistribution of the soil, sand, rock, gravel, sediment, or other material on a site in a manner that alters the natural contour of the land.

52. Hard Structural Shoreline Stabilization: Shore erosion control practices using hardened structures that armor and stabilize the shoreline from further erosion. Hard structural shoreline stabilization typically uses concrete, boulders, dimensional lumber or other materials to construct linear, vertical or near-vertical faces. These include bulkheads, rip-rap, groins, and similar structures.

53. Helipad: A takeoff and landing area for helicopters.

54. Houseboat: A structure designed and operated substantially as a permanently based overwater residence. Houseboats are not vessels and lack adequate self-propulsion and steering equipment to operate as a vessel. They are typically served by permanent utilities and semi-permanent anchorage/moorage facilities.

55. Impervious Surface: A hard surface water which either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development; and/or a hard surface area which causes water to run off the surface in greater quantities or at an increased rate of flow from the flow present under natural conditions prior to development. Common impervious surfaces include, but are not limited to, roof tops, walkways, patios, driveway, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled, macadam, or other surfaces which similarly impede the natural infiltration of surface and storm water runoff. Open, uncovered flow control or water quality treatment facilities shall not be considered impervious surfaces. Impervious surfaces do not include pervious surfaces as defined in this Chapter.

56. Industrial Uses: Uses such as manufacturing, assembly, processing, wholesaling, warehousing, distribution of products and high technology.

57. In-Stream Structure: A structure placed by humans within a stream or river waterward of the OHWM that either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. In-stream structures may include those for hydroelectric generation, irrigation, water supply, flood control, transportation, utility service transmission, fish habitat enhancement, or other purpose.

58. Joint-use: Piers and floats that are constructed by more than one contiguous waterfront property owner or by a homeowner's association or similar group.

59. Land Division: The division or redivision of land into lots, tracts, parcels, sites or divisions for the purpose of sale, lease, or transfer of ownership.

60. Land Surface Modification: The clearing or removal of shrubs, groundcover and other vegetation, excluding trees, and all grading, excavation and filling of materials.

61. Large Woody Debris: Trunks or branches of trees that have fallen in or been placed in a water body and serve the purposes of stabilization or habitat for fish and aquatic insects.

62. Low Impact Development: Low Impact Development (LID) is a set of techniques that mimic natural watershed hydrology by slowing, evaporating/transpiring, and filtering water that allows water to soak into the ground closer to its source. The development shall meet one or more of the following objectives:

- Preservation of natural hydrology.
- Reduction of impervious surfaces.
- Treatment of stormwater in numerous small, decentralized structures.
- Use of natural topography for drainage ways and storage areas.
- Preservation of portions of the site in undisturbed, natural conditions.
- Reduction of the use of piped systems. Whenever feasible, site design should use multifunctional open drainage systems such as vegetated swales or filter strips which also help to fulfill vegetation and open space requirements.
- Use of environmentally sensitive site design and green building construction that reduces runoff from structures, such as green roofs.

63. Marina: A private or public facility providing the purchase and or lease of a slip for storing, berthing and securing motorized boats or watercraft, including both long-term and transient moorage. Marinas may include accessory facilities for providing incidental services to users of the marina, such as waste

collection, boat sales or rental activities, and retail establishments providing fuel service, repair or service of boats.

64. May: Means the action is acceptable, provided it conforms to the provisions of the Shoreline Management Act, with the decision-maker having or using the ability to act or decide according to their own discretion or judgment.

65. Minor Improvements: Walkways, pedestrian bridges, benches, and similar features, as determined by the Planning Official, pursuant to KZC 83.500.3(e) and 83.510.3(e).

66. Moorage buoy: A floating object, sometimes carrying a signal or signals, anchored to provide a mooring place away from the shore.

67. Moorage pile: A piling to which a boat is tied up to prevent it from swinging with changes of wind or other similar functions.

68. Must: means a mandate; the action is required.

69. Neighborhood-oriented retail establishment: Small scale retail and service uses that provide primarily convenience retail sales and service to the surrounding residential neighborhood. The following is a nonexclusive list of neighborhood-oriented retail uses: small grocery store, drug store, hair salon, coffee shop, dry cleaner or similar retail or service uses.

70. Nonconforming use or development: A shoreline use or development which was lawfully constructed or established prior to the effective date of the act or the applicable master program, or amendments thereto, but which does not conform to present regulations or standards of the program.

71. Non-Water-Oriented Use: Uses that are not water-dependent, water-related, or water-enjoyment.

72. Ordinary High Water Mark (OHWM): The mark that will be found on all lakes and streams by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation, as that condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by a local government or the department; provided, that in any area where the OHWM cannot be found, the OHWM adjoining fresh water shall be the line of mean high water, or as amended by the State. For Lake Washington, the OHWM corresponds with a lake elevation of 21.8 feet, based on the NGVD 29 datum

73. Outfall: A structure used for the discharge of a stormwater or sewer system into a receiving water.

74. Pervious: As opposed to impervious surfaces, these are surfaces that allow water to pass through at rates similar to pre-developed conditions. Pervious surfaces, include, but are not limited to: pervious asphalt, pervious concrete, pervious gravel, grass or pervious pavers.

75. Permitted Uses: Uses which are allowed within the applicable shoreline environment, provided that they must meet the policies, use requirements, and regulations of this Chapter 83 KZC and any other applicable regulations of the City or state.

76. Pier: A structure supported by pilings that projects over, and is raised above the water but is attached to land, and that is used for boat moorage, swimming, fishing, public access, float plane moorage, or similar activities requiring access to deep water.

77. Piling: The structural supports for piers, usually below the pier decking and anchored in the water.

78. Preserve: The protection of existing ecological shoreline processes or functions.

79. Primary Basins: The primary basins shown on the Kirkland Sensitive Areas Map.

80. Primary Structure: A structure housing the main or principal use of the lot on which the structure is situated, including a detached garage associated with the primary structure. This term shall not include accessory uses, structures or activities as defined in Chapter 5 KZC.

- 81. Public Access:** The ability of the general public to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline.
- 82. Public Access Facility:** A water-oriented structure, such as a trail, pier, pedestrian bridge, boat launch, viewing platform, or fishing pier that provides access for the public to or along the shoreline.
- 83. Public Access Pier or Boardwalk:** An elevated structure that is constructed waterward of the OHWM and intended for public use.
- 84. Public Pedestrian Walkway:** A portion of private property subject to an easement giving the public the right to stand on or traverse this portion of the property.
- 85. Public Use Area:** A portion of private property that is dedicated to public use and which contains one or more of the following elements: benches, tables, lawns, gardens, piers, exercise or play equipment or similar improvements or features. These elements are to provide the public with recreational opportunities in addition to the right to traverse or stand in this area.
- 86. Qualified Professional:** An individual with relevant education and training, as determined by the Planning Official, and with at least three years' experience in biological fields such as botany, fisheries, wildlife, soils, ecology, and similar areas of specialization, and including a professional wetland scientist.
- 87. Rain Garden:** Rain gardens and bioretention areas are vegetation features adapted to provide on-site infiltration and treatment of stormwater runoff using soils and vegetation. They are commonly located within small pockets of residential land where surface runoff is directed into shallow, landscaped depressions; or in landscaped areas around buildings; or, in more urbanized settings, to parking lot islands and green street applications.
- 88. Recreational Use:** Commercial and public facilities designed and used to provide recreational opportunities to the public.
- 89. Residential Use:** Developments in which persons sleep and prepare food, other than developments used for transient occupancy. As used in the Chapter, residential development includes single-family development (known as detached dwelling unit), as well as multifamily development (known as detached, attached or stacked dwelling units) and the creation of new residential lots through land division.
- 90. Restore:** The reestablishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including but not limited to revegetation, removal of intrusive shoreline structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.
- 91. Restoration:** See Restore.
- 92. Revetment:** A shoreline protective structure constructed on a slope, and used to prevent erosion.
- 93. Riparian area:** A transition area between the aquatic ecosystem and the adjacent upland area that supports a number of shoreline ecological functions and processes, including bank stability, the recruitment of woody debris, leaf litter fall, nutrients, sediment filtering, shade, habitat and other riparian features that are important to both riparian forest and aquatic system conditions.
- 94. Salmonid:** A member of the fish family salmonidae, which include chinook, coho, chum, sockeye, and pink salmon; rainbow, steelhead, and cutthroat trout; brown trout; brook and dolly varden char, kokanee, and white fish.
- 95. Secondary Basins:** The secondary basins depicted on the Kirkland Sensitive Areas Map.
- 96. Shall:** Means a mandate; the action must be taken.
- 97. Shorelands:** Those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the OHWM; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal

waters which are subject to the provisions of the Shoreline Management Act; the same to be designated as to location by the Department of Ecology.

98. Shoreland Areas: See Shorelands.

99. Shoreline Functions: See Ecological Functions.

100. Shoreline Habitat and Natural Systems Enhancement Projects: Activities conducted for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines. The following is a nonexclusive list of shoreline habitat and natural systems enhancement projects: modification of vegetation, removal of non-native or invasive plants, shoreline stabilization, dredging and filling - provided that the primary purpose of such actions is clearly restoration of the natural character and ecological functions of the shoreline.

101. Shoreline Modification: Those actions that modify the physical configuration or qualities of the shoreline area, usually through the construction of a physical element such as a dike, breakwater, pier, dredged basin, fill, bulkhead, or other shoreline structure. They can include other actions, such as clearing, grading, or application of chemicals.

102. Shoreline Setback: The distance measured in feet that a structure or improvement must be located from the OHWM.

103. Shoreline Stabilization: Means for protecting shoreline upland areas and shoreline uses from the effects of shoreline wave action, flooding or erosion. Shoreline stabilization includes structural and non-structural methods, riprap, bulkheads, gabions, jetties, dikes and levees, flood control weirs, and bioengineered walls or embankments.

104. Shorelines: All of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them: except (i) shorelines of statewide significance; (ii) shorelines on segments of streams upstream of a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and (iii) shorelines on lakes less than twenty acres in size and wetlands associated with such small lakes.

105. Shorelines of Statewide Significance: Those lakes, whether natural, artificial, or a combination thereof, with a surface acreage of one thousand acres or more measured at the OHWM and those natural rivers or segments thereof where the mean annual flow is measured at one thousand cubic feet per second or more. Definition is limited to freshwater areas in Western Washington.

106. Should: Means that the particular action is required unless there is a demonstrated, compelling reason, based on policy of the Shoreline Management Act and the Shoreline Rules, against taking the action.

107. Sign, Interpretive: A permanent sign without commercial message, located on a publicly-accessible site, that provides public educational and interpretive information related to the site on which the sign is located, such as information on natural processes, habitat restoration programs, or cultural history, or that is associated with an adopt-a-stream, adopt-a-park or similar agency-sponsored program.

108. Significant Tree: See Chapter 5 KZC.

109. Significant Vegetation Removal: The removal or alteration of trees, shrubs, and/or ground cover by clearing, grading, cutting, burning, chemical means, or other activity that causes significant ecological impacts to functions provided by such vegetation. The removal of invasive or noxious weeds does not constitute significant vegetation removal. Tree pruning, not including tree topping, where it does not affect ecological functions, does not constitute significant vegetation removal.

110. Soft Structural Shoreline Stabilization Measures: Shore erosion control and restoration practices that contribute to restoration, protection or enhancement of shoreline ecological functions. Soft shoreline stabilization typically includes a mix of gravels, cobbles, boulders, logs and native vegetation placed to provide shore stability in a non-linear, sloping arrangement.

- 111. Streams** – Areas where surface waters produce a defined channel or bed that demonstrates clear evidence of the passage of water, including but not limited to bedrock channels, gravel beds, sand and silt beds, and defined-channel swales. The channel or bed need not contain water year-round. Streams do not include irrigation ditches, canals, storm or surface water runoff devices, or other entirely artificial watercourses, unless they are used by salmonids or convey a naturally occurring stream that has been diverted into the artificial channel.
- 112. Structural Shoreline Stabilization:** Means for protecting shoreline upland areas and shoreline uses from the effects of shoreline wave action, flooding or erosion that incorporate structural methods, including both hard structural shoreline stabilization methods and soft structural shoreline stabilization measures.
- 113. Substantial Development:** As defined in the Washington State Shoreline Management Act (SMA) found in 90.58 RCW, and WAC 173-27-030 and 173-27-040.
- 114. Transportation Facilities:** Facilities that include street pavement, curb and cutter, sidewalk and landscape strip as regulated under KZC 110.
- 115. Tour Boat Facility:** A moorage pier designed for commercial tour boat usage.
- 116. Tree:** A woody plant with one main trunk at a minimum height of 12' measured from the existing ground at maturity, having a distinct head in most cases. The Urban Forester shall have the authority to determine whether any specific woody plant shall be considered a tree or a shrub.
- 117. Upland:** Generally described as the dry land area above and landward of the OHWM, but not including wetlands.
- 118. Utilities:** Services, facilities and infrastructure that produce, transmit, carry, store, process or dispose of electric power, gas, water, sewage, communications, oil, storm water, and similar services and facilities.
- 119. Utility Production and Processing Facilities:** Facilities for the making or treatment of a utility, such as power plants and sewage treatment plants or parts of those facilities.
- 120. Utility Transmission Facilities:** Infrastructure and facilities for the conveyance of services, such as power lines, cables, and pipelines.
- 121. View Corridor:** An open area of the subject property that provides views unobstructed by structures across the subject property from the adjacent right-of-way to Lake Washington.
- 122. Water-Dependent Use:** A use or portion of a use that cannot exist in a location that is not adjacent to the water and which is dependent on the water by reason of the intrinsic nature of its operation.
- 123. Water-Enjoyment Use:** A recreational use or other use that facilitates public access to the shoreline as a primary characteristic of the use; or a use that provides recreational use or aesthetic enjoyment of the shoreline for a substantial number of people as a general characteristic of the use and which through location, design, and operation ensures the public's ability to enjoy the physical and aesthetic qualities of the shoreline. In order to qualify as a water-enjoyment use, the use must be open to the general public and the shoreline-orientated space within the project must be devoted to the specific aspects of the use that foster shoreline enjoyment.
- 124. Water-Oriented Use:** A use that is water-dependent, water-related, or water-enjoyment or a combination of such uses.
- 125. Water Quality:** The physical characteristics of water within shoreline jurisdiction, including water quantity, hydrological, physical, chemical, aesthetic, recreation-related, and biological characteristics. Where used in this Chapter, the term "water quantity" refers only to development and uses regulated under this Chapter and affecting water quantity, such as impermeable surfaces and storm water handling

practices. Water quantity, for purposes of this Chapter, does not mean the withdrawal of ground water or diversion of surface water pursuant to RCW 90.03.250 through 90.03.340.

126. Water-Related Use: A use or portion of a use which is not intrinsically dependent on a waterfront location, but whose economic viability is dependent upon a waterfront location because:

- a. The use has a functional requirement for a waterfront location such as the arrival or shipment of materials by water or the need for large quantities of water; or
- b. The use provides a necessary service supportive of the water-dependent uses and the proximity of the use to its customers makes it services less expensive and/or more convenient.

127. Watershed: A region or area bounded on the periphery by a parting of water and draining to a particular watercourse or body of water.

128. Watershed Restoration Plan: A plan, developed or sponsored by the department of fish and wildlife, the department of ecology, the department of natural resources, the department of transportation, a federally recognized Indian tribe acting within and pursuant to its authority, a city, a county, or a conservation district that provides a general program and implementation measures or actions for the preservation, restoration, re-creation, or enhancement of the natural resources, character, and ecology of a stream, stream segment, drainage area, or watershed for which agency and public review has been conducted pursuant to chapter [43.21C](#) RCW, the State Environmental Policy Act.

129. Watershed Restoration Project: A public or private project authorized by the sponsor of a watershed restoration plan that implements the plan or a part of the plan and consists of one or more of the following activities:

- a. A project that involves less than ten miles of streamreach, in which less than twenty-five cubic yards of sand, gravel, or soil is removed, imported, disturbed or discharged, and in which no existing vegetation is removed except as minimally necessary to facilitate additional plantings;
- b. A project for the restoration of an eroded or unstable stream bank that employs the principles of bioengineering, including limited use of rock as a stabilization only at the toe of the bank, and with primary emphasis on using native vegetation to control the erosive forces of flowing water; or
- c. A project primarily designed to improve fish and wildlife habitat, remove or reduce impediments to migration of fish, or enhance the fishery resource available for use by all of the citizens of the state, provided that any structure, other than a bridge or culvert or instream habitat enhancement structure associated with the project, is less than two hundred square feet in floor area and is located above the OHWM of the stream.

130. Water Taxi: A boat used to provide public transport for passengers, with service scheduled with multiple stops or on demand to many locations. A water taxi does not include accessory facilities such as ticketing booths and does not include the transport of vehicles.

131. Wetlands: Those areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soils conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, retention and/or detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. However, wetlands do include those artificial wetlands intentionally created from non-wetland sites as mitigation for the conversion of wetlands.

132. Wetland Rating: Wetlands shall be rated according to the *Washington State Wetland Rating System for Western Washington* (Department of Ecology 2004, or as revised). This document contains the definitions, methods and a rating form for determining the categorization of wetlands below:

Attachment 1
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a. Category I wetlands are those that 1) represent a unique or rare wetland type; or 2) are more sensitive to disturbance than most wetlands; or 3) are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or 4) provide a high level of functions. Category I wetlands include Natural Heritage wetlands, bogs, mature and old growth forested wetlands, and wetlands that score at least 70 points on the rating form.

b. Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions. These wetlands occur more commonly than Category I wetlands, but still need a relatively high level of protection. Category II wetlands score between 51 and 69 points on the rating form.

c. Category III wetlands have a moderate level of function, scoring between 30 and 50 points on the rating form.

d. Category IV wetlands have the lowest levels of functions (scores less than 30 points on the rating form) and are often heavily disturbed. These are wetlands that can often be replaced, and in some cases improved. However, replacement cannot be guaranteed in any specific case. These wetlands may provide some important functions, and also need to be protected.

Shoreline Environment Designations and Statewide Significance

83.90 Shoreline Jurisdiction and Official Shoreline Map

1. Shoreline Map -

- d. The adopted Shoreline Environment Designations Map is the graphic representation of the City's shorelines that are regulated by this program. The map, or set of maps, entitled City of Kirkland Shoreline Environment Designation Map and adopted by ordinance is hereby adopted as part of this code. See KZC Chapter 141 for information regarding amending this map.
- e. The adopted shoreline map identifies shoreline environment designations as well as the extent of shoreline jurisdiction.
 - 1) Extent of Shoreline Jurisdiction - The shoreline jurisdiction as depicted on the adopted Shoreline Environment Designations Map is intended to depict the *approximate* location and extent of known shorelands. In determining the exact location of shoreline jurisdiction, the criteria contained in RCW 90.58.030(2) shall be used. For Lake Washington, the OHWM corresponds with a lake elevation of 21.8 feet. The extent of shoreline jurisdiction on any individual lot, parcel or tract is to be determined by a field investigation and a survey and is the sole responsibility of the applicant. The location of the OHWM shall be included in shoreline permit application submittals to determine the extent of shoreline jurisdiction for review and approval by the Planning Official.
 - 2) Interpretation of Shoreline Environment Designations - The following shall be used to interpret the boundary of shoreline environment designations:
 - a) Following Property Lines – Where a shoreline environment designation boundary is indicated as approximately following a property line, the property line is the shoreline environment designation boundary.
 - b) Following Streets – Where a shoreline environment designation boundary is indicated as following a street, the midpoint of the street right-of-way is the shoreline environment designation boundary, except as follows:
 - i) The portion of the public right-of-way known as 98th Avenue NE located within 200 feet of the OHWM is designated wholly as Urban Mixed.
 - ii) Waterfront street ends, where the public right-of-way is designated wholly under one shoreline environment.
 - c) Wetlands – Where an associated wetland boundary extends beyond the area depicted on the Shoreline Environment Designation Map, the additional wetland area shall be designated the same shoreline environment as the adjoining wetland area.
 - d) Lakes – The Aquatic environment designation boundary extends into Lake Washington to the full limit and territorial extent of the police power, jurisdiction and control of the City of Kirkland.
 - e) Other Cases – Where a shoreline environment designation boundary is not indicated to follow a property line or street, the boundary line is as follows:
 - i) The transition of the shoreline environment designation from Urban Conservancy to Urban Mixed at Juanita Beach Park occurs at a point measured 75 feet east of the OHWM of Juanita Creek.

- ii) The transition of the shoreline environment designation from Urban Conservancy to Urban Residential west of Juanita Beach Park occurs at a point measured 75 feet west of the OHWM of Juanita Creek.
- f) Classification of Vacated Rights-of-Way – Where a right-of-way is vacated, the area comprising the vacated right-of-way will acquire the classification of the property to which it reverts.
- g) Undesignated Properties - Any shoreline areas not mapped and/or designated shall be assigned an Urban Conservancy designation, except wetlands as noted in subsection 2)c) above.

2. Shoreline Environment Designations -

- a. Sections 83.100 through 83.150 establish the six (6) shoreline environment designations used in the City of Kirkland and their respective purposes, designation criteria, and management policies. Sections 83.180 through 83.550 then establish the different regulations that apply in these different environmental designations.
- b. The management policies contained in the Shoreline Chapter of the Comprehensive Plan shall be used to assist in the interpretation of these regulations.

83.100 Natural

- 1. Purpose - To protect and restore those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use. The natural environment also protects shoreline areas possessing natural characteristics with scientific and educational interest. These systems require restrictions on the intensities and types of land uses permitted in order to maintain the integrity of the ecological functions and ecosystem-wide processes of the shoreline environment.
- 2. Designation Criteria – A Natural environment designation should be assigned to shoreline areas if any of the following characteristics apply:
 - a. The shoreline is ecologically intact and therefore currently performing an important, irreplaceable function or ecosystem-wide process that would be damaged by human activity;
 - b. The shoreline is considered to represent ecosystems and geologic types that are of particular scientific and educational interest; or
 - c. The shoreline is unable to support new development or uses without significant adverse impacts to ecological functions or risk to human safety.

83.110 Urban Conservancy

- 1. Purpose - To protect and restore ecological functions of open space, flood plain and other sensitive lands where they exist in urban and developed settings, while allowing a variety of compatible uses.
- 2. Designation Criteria - An Urban Conservancy environment designation should be assigned to shoreline areas appropriate and planned for development that is compatible with maintaining or restoring the ecological functions of the area, that are not generally suitable for water-dependent uses and that lie in incorporated municipalities or urban growth areas if any of the following characteristics apply:
 - a. They are suitable for water-related or water-enjoyment uses;
 - b. They are open space, flood plain or other sensitive areas that should not be more intensively developed;
 - c. They have potential for ecological restoration;

- d. They retain important ecological functions, even though partially developed; or
- e. They have the potential for development that is compatible with ecological restoration.

83.120 Residential - L

1. Purpose - To accommodate low-density residential development and appurtenant structures that are consistent with this Chapter.
2. Designation Criteria - A Residential - L environment designation should be assigned to shoreline areas inside urban growth areas, as defined in RCW 36.70A.110, and incorporated municipalities if they are predominantly single-family residential development or are planned and platted for low-density residential development, unless these areas meet the designation criteria for the Natural shoreline environment designation.

83.130 Residential - M/H

1. Purpose - To accommodate medium and high-density residential development and appurtenant structures that are consistent with this Chapter. An additional purpose is to provide appropriate public access and recreational uses, as well as limited water-oriented commercial uses that depend on or benefit from a shoreline location.
2. Designation Criteria - A Residential - M/H environment designation should be assigned to shoreline areas inside urban growth areas, as defined in RCW 36.70A.110, and incorporated municipalities if they are predominantly multifamily residential development or are planned and platted for medium or high-density residential development, unless these properties meet the designation criteria for the Natural or Urban Conservancy shoreline environment designation.

83.140 Urban Mixed

1. Purpose - To provide for high-intensity land uses, including residential, commercial, recreational, transportation and mixed-used developments. The purpose of this environment is to ensure active use of shoreline areas that are presently urbanized or planned for intense urbanization, while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded.
2. Designation Criteria - An Urban Mixed environment designation should be assigned to shoreline areas within incorporated municipalities and urban growth areas if they currently support high-intensity uses related to commerce, transportation or navigation; or are suitable and planned for high-intensity water-oriented uses.

83.150 Aquatic

1. Purpose - To protect, restore, and manage the unique characteristics and resources of the areas waterward of the OHWM.
2. Designation Criteria - An Aquatic environment designation should be assigned to lands waterward of the ordinary high-water mark.

Uses and Activities in the Shoreline Environment

83.160 User Guide

1. Explanation of Uses Table
 - a. The table contained in KZC 83.170 identifies uses and activities and defines whether those uses are prohibited, permitted by application for Exemption or Shoreline Substantial Development Permit, or permitted by a Shoreline Conditional Use Permit. If a use is not specifically listed, then it may be considered through a Shoreline Conditional Use Permit (see Chapter 141). The following symbols apply:
 - 1) "X" means that the use or activity is prohibited in the identified Shoreline Environment. Shoreline uses, activities, or conditions listed as prohibited shall not be authorized through a variance, conditional use permit, or any other permit or approval.
 - 2) "SD" means that the use or activity may be permitted by approval of the Planning Official through a Letter of Shoreline Exemption (see KZC Chapter 141) or through a Shoreline Substantial Development Permit (see KZC Chapter 141).
 - 3) "CU" means that the use or activity may be permitted by approval of the Planning Official and Department of Ecology through a Shoreline Conditional Use Permit (see KZC Chapter 141). Uses that are not specifically prohibited under KZC 83.170 may be authorized through a Shoreline Conditional Use Permit.
 - 4) Shoreline Variances (see Chapter 141) are intended only to grant relief from specific bulk, dimensional or performance standards in the Shoreline Master Program, NOT to authorize shoreline uses and activities. They are therefore not included in KZC 83.170.
2. See KZC 83.370 for federal and state approval.

83.170 Shoreline Environments, Permitted and Prohibited Uses and Activities Chart

The chart is coded according to the following legend.							
SD	= Substantial Development ¹	Natural	Urban Conservancy	Residential - L	Residential - M/H	Urban Mixed	Aquatic
CU	= Conditional Use						
X	= Prohibited; the use is not eligible for a Variance or Conditional Use Permit						
SHORELINE USE							
Resource Land Uses							
Agriculture		X	X	X	X	X	X
Aquaculture		X	X	X	X	X	X
Forest practices		X	X	X	X	X	X
Mining		X	X	X	X	X	X
Commercial Uses							
Water-dependent uses							

- Deleted: Scientific research and Native American fishing
- Deleted: SD

¹ A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemptions. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the act and the local master program;

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Float plane landing and mooring facilities ²	X	X	X	X	CU	See adjacent upland environments
Any water-dependent Retail Establishment other than those specifically listed in this chart, selling goods or providing services.	X	SD ³	X	X	SD	See adjacent upland environments
Water-related, water-enjoyment commercial uses						
Any water-oriented Retail Establishment other than those specifically listed in this chart, selling goods or providing services.	X	SD ⁴	X	X	SD	X

1 Limited to water-based aircraft facilities for air charter operations

2 Permitted as an accessory use to a Public Park

2 Permitted as an accessory use to a Public Park

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Retail Establishment providing new or used Boat Sales or Rental	X	SD ⁴	X	CU ^{5,7}	SD ⁶	See adjacent upland environments
Retail establishment providing gas and oil sale for boats	X	X	X	CU ^{5,7}	CU ⁷	See adjacent upland environments
Retail establishment providing boat and motor repair and service	X	X	X	CU ^{5,7}	CU ⁷	X
Restaurant or Tavern ⁸	X	X	X	CU ⁵	SD	X
Concession Stand	X	SD ⁴	X	X	SD ⁴	X
Entertainment or cultural facility	X	CU ⁹	X	X	SD	X

⁵ Permitted if located on the west side of Lake Washington Lake Blvd NE/Lake St S south of Lake Avenue West and north of NE 52nd Street.

⁶ Permitted in the Juanita Business District or as an accessory use to a marina.

⁷ Accessory to a marina only.

⁸ Drive-in or drive-through facilities are prohibited.

⁹ Use must be open to the general public.

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential - M/H	Urban Mixed	Aquatic
Hotel or Motel	X	X	X	CU ¹⁰ /X	SD	X
Nonwater-oriented uses						
Any Retail Establishment other than those specifically listed in this chart, selling goods, or providing services including banking and related services	X	X	X	X	SD ¹¹	X
Office Uses	X	X	X	X	SD ¹¹	X
Neighborhood-oriented Retail Establishment	X	X	X	CU ¹²	SD ¹¹	X
Private Lodge or Club	X	X	X	X	SD ¹¹	X
Vehicle Service Station	X	X	X	X	X	X
Automotive Service Center	X	X	X	X	X	X

¹⁰ Permitted in Planned Area 3B established in the Lakeview Neighborhood Plan only.

¹¹ Permitted as part of mixed-use development containing water-dependent uses, where there is intervening development between the shoreline and the use, or if located on the east side of Lake Washington Blvd NE/Lake St S or the east side of 98th Avenue NE.

¹² Permitted if located on the east side of Lake Washington Blvd NE between NE 60th Street and 7th Ave S.

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential - M/H	Urban Mixed	Aquatic
Dry land boat storage	X	X	X	X	X	X
Industrial Uses						
Water-dependent uses	X	X	X	X	X	X
Water-related uses	X	X	X	X	X	X
Nonwater-oriented uses	X	X	X	X	X	X
Recreational Uses						
Water-dependent uses						
Marina ¹³	X	CU	X	SD	SD	See adjacent upland environments
Piers, docks, boat lifts and canopies serving Detached Dwelling Unit ¹³	X	X	SD	SD	SD ¹⁷	

¹³ No boat moored in or off the shoreline of Kirkland shall be used as a place of habitation.

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential - M/H	Urban Mixed	Aquatic
Piers, docks, boat lifts and canopies serving Detached, Attached or Stacked Dwelling Units ¹³	X	X	X	SD	SD	
Float	X	SD ⁴	X	X	SD ⁴	
Tour Boat Facility	X	X	X	X	SD ¹⁴	
Moorage buoy ¹³	X	SD	SD	SD	SD	
Public Access Pier or Boardwalk	CU	SD	SD	SD	SD	
Boat launch (for motorized boats)	X	X	X	X	CU	
Boat launch (for non-motorized boats)	SD	SD	SD	SD	SD	
Boat houses or other covered moorage not specifically listed	X	X	X	X	X	
Swimming beach and other public recreational use	CU	SD	SD	SD	SD	
Any water-dependent recreational development other than those specifically listed in this chart	CU	SD	SD	SD	SD	

¹⁴ Permitted as an accessory use to a Marina or Public Park only.

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential - M/H	Urban Mixed	Aquatic
Water-related, water-enjoyment uses						
Any water-oriented recreational development other than those specifically listed in this chart	X	CU	CU	CU	SD	X
Other Public Park Improvements ¹⁵	CU	SD	SD	SD	SD	X
Public Access Facility	SD ¹⁶	SD	SD	SD	SD	See adjacent upland environment
Nonwater-oriented uses						
Nonwater-oriented recreational development.	X	X	X	X	SD ¹¹	X
Residential Uses						
Detached dwelling unit	CU	CU	SD	SD	SD ¹⁷	X

¹⁵ This use does not include other public recreational uses or facilities specifically listed in this chart

¹⁶ Limited to trails, viewpoints, interpretative signage and similar passive and low-impact facilities.

¹⁷ Permitted if located south of NE 60th Street only.

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Accessory dwelling unit ¹⁸	X	X	SD	SD	SD ¹⁷	X
Detached, Attached or Stacked Dwelling Units (multi-family units on one lot)	X	X	X	SD	SD	X
Houseboats	X	X	X	X	X	X
Assisted Living Facility ¹⁹	X	X	X	CU	SD	X
Convalescent Center or Nursing Home	X	X	X	CU ²⁰	SD ²¹	X
Land division	SD ²²	SD ²²	SD	SD	SD	X
Institutional Uses						
Government Facility	X	SD	SD	SD	SD	X
Community Facility	X	X	X	X	SD	X
Church	X	X	X	CU ²⁰	SD ²¹	X
School or Day-Care Center	X	X	X	CU ²⁰	SD ¹¹	X

¹⁸ One accessory dwelling unit (ADU) is permitted as subordinate to a detached dwelling unit

¹⁹ A nursing home use may be permitted as part of an assisted living facility use.

²⁰ Permitted if located on the east side of Lake Washington Blvd NE/Lake St S, or the east side of 98th Avenue NE.

²¹ Not permitted in the Central Business District. Otherwise, permitted if located on the east side of Lake Washington Blvd NE/Lake St S, the east side of 98th Avenue NE or on the south side of NE Juanita Drive.

²² May not create any new lot that would be wholly contained within shoreland area in this shoreline environment.

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential - M/H	Urban Mixed	Aquatic
Mini-School or Mini-Day-Care Center	X	X	X	SD ²⁰	SD ¹¹	X
Transportation						
Water-dependent						
Bridges	CU	CU	SD	SD	SD	See adjacent upland environments
Passenger-only Ferry terminal	X	X	X	X	CU	
Water Taxi	X	SD ²³	SD ²³	SD ²³	SD ²³	
Nonwater-oriented						
Arterials, Collectors, and neighborhood access streets	CU	SD ²⁴ /CU	SD	SD	SD	X
Helipad	X	X	X	X	X	X
Utilities						
Utility production and processing facilities	X	CU ²⁵	CU ²⁵	CU ²⁵	CU ²⁵	X
Utility transmission facilities	CU ²⁵	SD ²⁵	SD ²⁵	SD ²⁵	SD ²⁵	CU ²⁵

²³ Permitted as an accessory use to a marina or a public park.

²⁴ Construction of pedestrian and bicycle facilities only.

²⁵ This use may be allowed provided there is no other feasible route or location.

The chart is coded according to the following legend. SD = Substantial Development ¹ CU = Conditional Use X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Personal Wireless Service Facilities ²⁶	X	SD	SD	SD	SD	X
Radio Towers	X	X	X	X	X	X
SHORELINE MODIFICATIONS						
Breakwaters/jetties/rock weirs/groins	X	X	X	SD ²⁷ /CU	SD ²⁷ /CU	See adjacent upland environments
Dredging and dredge materials disposal	SD ²⁷ /CU					
Fill waterward of the OHWM	SD ²⁷ /CU					
Land surface modification	SD ²⁷ /CU	SD	SD	SD	SD	
Shoreline habitat and natural systems enhancement projects	SD	SD	SD	SD	SD	
Hard Structural Shoreline Stabilization	X	CU	SD	SD	SD	
Soft Structural Shoreline Stabilization Measures	X	SD	SD	SD	SD	

²⁶ New towers are not permitted.

²⁷ Permitted under a substantial development permit when associated with a restoration or enhancement project.

Use Specific Regulations

83.180 Shoreline Development Standards

1. General –
 - a. See KZC 83.40 for relationship to other code and ordinances.
 - b. Development standards specified in this Chapter shall not extend beyond the geographic limit of the shoreline jurisdiction, except as noted in the provisions contained below.
2. Development Standards Chart –
 - a. The following chart establishes the minimum required dimensional requirements for development. At the end of the chart are footnotes pertaining to certain uses and activities.
 - b. KZC Section 83.170 contains an overview of the activities permitted under each of the use classifications contained in the development standards chart.
 - c. KZC 83.180 through KZC 83.550 contains additional standards for the uses and activities, including provisions for No Net Loss and Mitigation Sequencing in KZC 83.360 and federal and state approval in KZC 83.370.

SHORELINE DEVELOPMENT STANDARDS

83.180. 3

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Residential Uses						
Detached Dwelling Units and Accessory Dwelling Units						

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Minimum Lot Size	n/a	12,500 sq. ft.	12,500 sq. ft.	12,500 sq. ft. except for the following: <ul style="list-style-type: none"> • 5,000 sq. ft. if located on east side of Lake St S, at 7th Ave S; and • 7,200 sq. ft. if subject to the Historic Preservation provisions of KMC 22.28.048 	3,600 sq. ft.	3,600 sq. ft.
Shpreline Setback ²⁸	n/a	Thirty (30) % of the average parcel depth, except in no case is the shoreline setback	Outside of shoreline jurisdictional area, if feasible, otherwise 50'.	30 % of the average parcel depth, except in no case is the shoreline setback permitted to be less than 30 feet or required to be greater than 60 feet, except as	The greater of: a. 25' or b. 15% of the average parcel depth.	The greater of: a. 25' or b. 15% of the average parcel depth.

²⁸ Critical area buffer and buffer setback requirements may impose a larger setback requirement. Please see Section 83.500 and 83.510.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
		permitted to be less than 30 feet or required to be greater than 60 feet, except as otherwise specifically allowed through this Chapter.		<p>otherwise specifically allowed through this Chapter.</p> <p>For those properties located along Lake Ave W south of the Lake Ave W Street End Park, the following standard shall apply:</p> <p>If dwelling units exist immediately adjacent to both the north and south property lines of the subject property, then the shoreline setback of the primary structure on the subject property is the average of the shoreline setback of these adjacent</p>		

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
				dwelling units, but at a minimum width of 15 feet. If a dwelling unit is not adjacent to the property, then the setback of the adjacent property without a dwelling unit for the purposes of determining an average setback shall be based upon 30% of the average parcel depth. Also see KZC 83.190.2.b.3		
Maximum Lot Coverage	n/a	50%	50%	50%	60%	80% except for the following: In the CBD zones, 100% for properties that do not abut Lake Washington; otherwise 90%
Maximum Height of Structure ³¹	n/a	25' above ABE ²⁹	35' above ABE	30' above ABE	35' above ABE	35' above ABE

²⁹ Structure height may be increased to 30' above ABE in the Natural shoreline environment. See KZC 83.190.4.c.1).

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Other Residential Uses (Attached, Stacked, and Detached Dwelling Units/multifamily; Assisted Living Facility; Convalescent Center or Nursing Home)						
Maximum Density ³⁰	n/a	n/a	n/a	n/a	3,600 sq. ft./unit, except 1,800 sq. ft./unit for up to 2 dwelling units if the public access provisions of KZC 83.420 are met	No minimum lot size in the CBD zones; otherwise 1,800 sq. ft./unit
Shoreline Setback ²⁸	n/a	n/a	n/a	n/a	The greater of: a. 25' or b. 15% of the average parcel depth.	The greater of: a. 25' or b. 15% of the average parcel depth. In the PLA 15A zone located south of NE 52 nd Street, a mixed-use development approved under a Master Plan shall comply with the Master Plan provisions.
Maximum Lot Coverage	n/a	n/a	n/a	n/a	80%	80% except for the CBD zones, 100% on properties that do not abut Lake Washington; otherwise 90%
Maximum Height of Structure ³¹	n/a	n/a	n/a	n/a	30' above ABE ³²	41' above ABE, except for the following:

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³⁰ For density purposes, two assisted living units shall constitute one dwelling unit.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
						<ul style="list-style-type: none"> In the CBD zones, if located on the east side of Lake Street South, 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property. In the PLA 15A zone located south of NE 52nd Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.³³
Commercial Uses						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a
Shoreline Setback ²⁸	n/a	n/a	Water-dependent uses: 0', Water-related use: 25', Water-enjoyment	n/a	The greater of: a. 25' or b. 15% of the average	The greater of: a. 25' or b. 15% of the average parcel

³¹ The height limit applies to that portion of the building physically located within the shoreline jurisdiction. Permitted increases in building height are addressed in KZC 83.190.4.

³² Structure height may be increased to 35' above ABE. See KZC 83.190.4.

³³ See KZC 83.190.4.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
			use: 30', Other uses: Outside of shoreline jurisdictional area, if feasible, otherwise 50'.		parcel depth.	depth. In the PLA 15A zone located south of NE 52 nd Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.
Maximum Lot Coverage	n/a	n/a	50%	n/a	80%	80% except for the CBD zones, 100% on properties that do not abut Lake Washington; otherwise 90%
Maximum Height of Structure ³¹	n/a	n/a	If adjoining the Residential-L Shoreline Environment, then 25' above ABE. Otherwise, 30' above ABE. ³²	n/a	30' above ABE ³²	41' above ABE, except for the following: <ul style="list-style-type: none"> In the CBD zones, if located on the east side of Lake St S, 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property. In the PLA 15A zone located south of NE 52 nd Street, mixed-use developments approved under a Master

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
						Plan shall comply with the Master Plan provisions. ³⁴
Recreational Uses						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a
Shoreline Setback ²⁸	n/a	Water-dependent uses: 0', Water-related use: 25', Water-enjoyment use: 30', Other uses: Outside of shoreline area, if feasible, otherwise 50'.	Water-dependent uses: 0', Water-related use: 25', Water-enjoyment use: 30', Other uses: Outside of shoreline jurisdictional area, if feasible, otherwise 50'.	30% of the average parcel depth, except in no case is the shoreline setback permitted to be less than 30 feet or required to be greater than 60 feet, except as otherwise specifically allowed through this Chapter.	The greater of: a. 25' or b. 15% of the average parcel depth.	The greater of: a. 25' or b. 15% of the average parcel depth. In the PLA 15A zone located south of NE 52 nd Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.
Maximum Lot Coverage	n/a	10%	30%	30%	80%	80% except for the following: <ul style="list-style-type: none"> In the CBD zones, 100% on properties that do not

³⁴ See KZC 83.180.6.c.1)d).

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
						abut Lake Washington; otherwise 90%
Maximum Height of Structure ³¹	n/a	25' above ABE	If adjoining the Residential-L Shoreline Environment, then 25' above ABE. Otherwise, 30' above ABE ³²	25' above ABE	30' above ABE ³²	41' above ABE, except for the following: <ul style="list-style-type: none"> In the CBD zones, if located on the east side of Lake St S, 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property. In the PLA 15A zone located south of NE 52nd Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.
Institutional Uses						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a
Shpreline Setback ²⁸	n/a	n/a	Outside of shoreline jurisdictional area, if feasible, otherwise 50'.	Outside of the shoreline jurisdictional area, if feasible, otherwise 30% of the average	The greater of: a. 25' or b. 15% of the average parcel depth.	The greater of: a. 25' or b. 15% of the average parcel depth.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
				parcel depth, except in no case is the shoreline setback permitted to be less than 30 ft. or required to be greater than 60 ft., except as otherwise specifically allowed through this Chapter.		
Maximum lot coverage	n/a	n/a	50%	50%	80%	80% except for the CBD zones, 100% on properties that do not abut Lake Washington; otherwise 90%
Maximum height of structure ³¹	n/a	n/a	If adjoining the Residential-L Shoreline Environment, then 25' above ABE. Otherwise, 30' above ABE ³²	25' above ABE	30' above ABE ³²	41' above ABE, except In the CBD zones, if located on the east side of Lake St S, 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property.
Transportation Facilities						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback ²⁸	n/a	n/a	Outside of shoreline area, if feasible, otherwise 50'.	30% of the average parcel depth, except in no case is the shoreline setback permitted to be less than 30 feet or required to be greater than 60 feet, except as otherwise specifically allowed through this Chapter.	The greater of: a. 25' or b. 15% of the average parcel depth.	The greater of: a. 25' or b. 15% of the average parcel depth.
Maximum Lot Coverage	n/a	n/a	n/a	n/a	n/a	n/a
Maximum Height of Structure ³¹	n/a	n/a	n/a	n/a	n/a	n/a
Utilities						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a
Shoreline Setback ²⁸	n/a	Outside of shoreline area, if feasible, otherwise 50'.	Outside of shoreline area, if feasible, otherwise 50'.	30% of the average parcel depth, except in no case is the shoreline setback permitted to be less than 30 feet	The greater of: a. 25' or b. 15% of the average parcel depth.	The greater of: a. 25' or b. 15% of the average parcel depth.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
				or required to be greater than 60 feet, except as otherwise specifically allowed through this Chapter.		
Maximum Lot Coverage	n/a	5%	30%	50%	80%	80% except in the CBD zones, 100% on properties that do not abut Lake Washington; otherwise 90%
Maximum Height of Structure ³¹	n/a	25' above ABE	If adjoining the Residential-L Shoreline Environment, then 25' above ABE. Otherwise, 30' above ABE ³²	25' above ABE	30' above ABE ³²	41' above ABE, except for the following: <ul style="list-style-type: none"> In the CBD zones if located on the east side of Lake St South, 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property. In the PLA 15A zone located south of NE 52nd Street, mixed-use developments approved under a Master Plan shall comply with the

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
						Master Plan provisions.

83.190 Lot Size or Density, Shoreline Setback, Lot Coverage and Height

1. Calculation of Minimum Lot Size or Maximum Density –

- a. Development shall not use lands waterward of the OHWM to determine minimum lot size or to calculate allowable maximum density.
- b. For properties that are only partially located within the shoreline jurisdiction, the allowed density within the shoreline jurisdiction shall be based upon the land area located within the shoreline jurisdiction only. If dwelling units will be partially located within the shoreline jurisdiction, the City may approve an increase in the actual number of units in the shoreline jurisdiction, provided that the total square footage of the units within the shoreline jurisdiction does not exceed the allowed density multiplied by the average unit size in the proposed development on the subject property.
- c. If a maximum density standard is used, the number of permitted dwelling units shall be rounded up to the next whole number (unit) if the fraction of the whole number is at least 0.50.
- d. For detached dwelling units, the provisions addressing lot size, lot size averaging, and historic preservation contained in Chapter 22.28 KMC shall apply within the shoreline jurisdiction

2. Shoreline Setback –

- a. General – This section establishes what structures, improvements, and activities may be in or take place in the shoreline setback established for each use in each shoreline environment.
- b. Measurement of Shoreline Setback –
 - 1) The shoreline setback shall be measured landward from the OHWM on the horizontal plane and in the direction that results in the greatest dimension from the OHWM (see Plate XX).
 - 2) In those instances where the OHWM moved further upland pursuant to any action required by this Chapter, or in accordance with permits involving a shoreline habitat and natural systems enhancement project approved by the City, a state or federal agency, the shoreline setback shall be measured from the location of the OHWM that existed immediately prior to the enhancement project.
 - 3) For those properties located along Lake Ave W south of the Lake Ave W Street End Park, in instances where the shoreline setback of adjacent dwelling units has been reduced through a shoreline reduction authorized under KZC Section 83.380, the shoreline setback of these adjacent dwelling units, for the purpose of calculating a setback average, shall be based upon the required setback that existed prior to the authorized reduction.
- c. Exceptions and Limitations in Some Zones – KZC Sections 83.190 through 83.250 contain specific regulations regarding what may be in or take place in the shoreline setback. Where applicable, those specific regulations supersede the provisions of this section.
- d. Structures and Improvements – The following improvements or structures may be located in the shoreline setback, except within the Natural environment, provided that they are constructed and maintained in a manner that meets KZC 83.360 for avoiding or at least minimizing adverse impacts to shoreline ecological functions:
 - 1) For public pedestrian access required under KZC 83.420, walkways, benches, and similar features, as approved by the Planning Official.
 - 2) For private access to the shoreline, walkways within the shoreline setback are permitted, subject to the following standards:

- a) The maximum width of the walkway corridor area shall be no more than 25 percent of the property's lake frontage, except in no case is the corridor area required to be less than 15 feet in width (see Plate XX).
 - b) The walkway corridor area shall be located outside of areas of higher ecological and habitat value.
 - c) The walkway in the corridor area shall be no more than 8 feet wide, and be constructed of a pervious walking surface, such as unit pavers, grid systems, pervious concrete, or, equivalent material approved by the Planning Official.
 - d) The walkway corridor area may contain minor improvements, such as garden sculptures, light fixtures, trellises and similar decorative structures that are associated with the walkway, provided that these improvements comply with the dimensional limitations required for the walkway corridor area and any view corridor requirements under KZC Section 83.410. Light fixtures approved under this subsection shall comply with the provisions contained in KZC 83.470.
- 3) Those portions of water-dependent development that require improvements adjacent to the water's edge, such as fueling stations for retail establishments providing gas sales, haul-out areas for retail establishments providing boat and motor repair and service, boat ramps for boat launches or other similar activities.
 - 4) Public access facilities or other similar public water-enjoyment recreational uses, including swimming beaches.
 - 5) Underground utilities accessory to a shoreline use approved by the Planning Official, provided there is no other feasible route or location.
 - 6) Bioretention swales, rain gardens, or other similar bioretention systems that allow for filtration of water through planted grasses or other native vegetation.
 - 7) Infiltration systems provided that installation occurs as far as feasible from the OHWM.
 - 8) Bay windows, greenhouse windows, eaves, cornices, awnings, and canopies may extend up to 18 inches into the shoreline setback, subject to the limitations of this section. Eaves on bay windows may extend an additional 18 inches beyond the bay window. Chimneys that are designed to cantilever or otherwise overhang are permitted. The total horizontal dimension of the elements that extend into the shoreline setback, excluding eaves and cornices, shall not exceed 25 percent of the length of the facade of the structure.
 - 9) Decks, patios and similar improvements may extend up to 10 feet into the shoreline setback but shall not be closer than 25 feet to the OHWM, subject to the following standards:
 - a) The improvement shall be constructed of a pervious surface, such as wood with gaps between boards and a pervious surface below, unit pavers, grid systems, pervious concrete, or, alternatively, equivalent material approved by the Planning Official.
 - b) The total horizontal dimension of the improvement that extends into the shoreline setback shall not exceed 50 percent of the length of the facade of the primary structure.
 - c) The improvement shall be located on the ground floor of the building and shall not be elevated more than necessary to allow for grade transition from the residence to the deck or to follow the existing topography.
 - 10) In the Urban Mixed shoreline environment, balconies at least 15 feet above finished grade may extend up to 4 feet into the shoreline setback.
 - 11) Outdoor seating areas for restaurants, hotels and other water enjoyment commercial uses may extend up to 10 feet into the shoreline setback, but shall be no closer than 16 feet to the OHWM, subject to the following standards:

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- a) The improvement shall be constructed of a permeable surface, such as wood with gaps between boards and a pervious surface below, unit pavers, grid systems, porous concrete, or equivalent material approved by the Planning Official.
 - b) The total horizontal dimension of the improvement that extends into the shoreline setback shall not exceed 50 percent of the length of the facade of the primary structure.
 - c) The improvement shall be located on the ground floor of the building and shall not be elevated more than necessary to allow for grade transition from the structure to the seating area or to follow the existing topography.
 - d) All outdoor lighting is required to meet the lighting standards of KZC Section 83.470.
 - e) The seating area is required to be fenced off from the shoreline by rope stanchions, portable planters, or similar device approved by the City, with openings through the fencing for customer entry. The floor plan of the seating area shall be designed to preclude the seating area from being expanded.
 - f) The applicant is required to provide one (1) or more approved trash receptacles and one (1) or more ashtrays.
 - g) The area of the seating shall be considered new gross floor area for the purposes of determining whether vegetation is required under the provisions of KZC Section 83.400.
- 12) Retaining walls and similar structures that are no more than four feet in height above finished grade; provided the following standards are met:
- a.) The structure shall be designed so that it does not interfere with the shoreline vegetation required to be installed under the provisions of KZC 83.400;
 - b.) The structure shall not be installed to provide the function of a shore erosion control structure unless approved under the provisions of KZC 83.300, and
 - c.) The structure shall meet the view corridor provisions of KZC 83.410.
- 13) Public bridges and other essential public facilities that must cross the shoreline.
- 14) Parking as authorized by the Planning Official under the provisions of KZC 83.440.3.
- 15) Shoreline stabilization measures approved under the provisions of KZC 83.300.
- 16) Fences, swimming pools, tool sheds, greenhouses and other accessory structures and improvements are not permitted within the shoreline setback, except those specifically listed above in subsection 83.190 2.d.2).d).
3. Maximum Lot Coverage –
- a. General –
 - 1) KZC 83.180.3, Development Standards Chart, establishes the maximum lot coverage by use and shoreline environment.
 - 2) In calculating lot coverage, lands waterward of the OHWM shall not be included in the calculation.
 - 3) The area of all structures and pavement and any other impervious surface on the subject property will be calculated under either of the following, at the discretion of the applicant:
 - 1) A percentage of the total lot area of the subject property, or
 - 2) A percentage of the area of the subject property located within the shoreline jurisdiction.

- 4) If the subject property contains more than one use, the maximum lot coverage requirements for the predominant use will apply.
 - 5) In those instances where the OHWM moved further upland pursuant to any action required by this Chapter, or in accordance with permits involving a shoreline habitat and natural systems enhancement project approved by the City, a state or federal agency, the lot area for purposes of calculating lot coverage shall be measured from the location of the OHWM that existed immediately prior to the enhancement project.
- b. Exceptions – The exceptions contained in Chapter 115 KZC shall apply within the shoreline jurisdiction.
4. Height Regulations –
- a. General –
- 1) KZC 83.180.3, Development Standards Chart, establishes the maximum allowed building height for all primary and accessory structures. In the event that the maximum allowable building height in KZC 83.180.3 is greater than the maximum allowable height in the Kirkland Zoning Code, the lower of the two height provisions shall apply.
 - 2) Maximum building height shall be measured from an average building elevation (ABE), calculated under the methods described in KZC 115.59 and depicted in Plates 17A and 17B. The calculation of ABE shall be based on all wall segments of the structure, whether or not the segments are located within the shoreline jurisdiction.
 - 3) In the CBD zones, maximum building height shall be measured from the midpoint of the abutting right-of-way, not including alleys.
 - 4) Pursuant to RCW 90.58.320, no permit shall be issued for any new or expanded building or structure more than 35 feet above average grade level that will obstruct the view to the lake of a substantial number of residences on or adjoining the shoreline except where this Chapter does not prohibit a height of more than 35 feet and only when overriding considerations of the public interest will be served. The applicant shall be responsible for providing sufficient information to the City to determine whether such development will obstruct the view to the lake for a substantial number of residences on or adjoining such shorelines. For the purposes of this provision, average grade level is equivalent to and shall be calculated under the method for calculating average building elevation established in Option 2 as described in KZC 115 for calculating average building elevation and depicted in Plate 17B.
- b. Exceptions –
- 1) Element or feature of a structure, other than the appurtenances listed below, shall not exceed the applicable height limitation established for each use in each shoreline environment. The following appurtenances shall be located and designed so that views from adjacent properties to the lake will not be significantly blocked.
 - 1) Antennas, chimneys, and similar appurtenances, but not including personal wireless service facilities, which are subject to the provisions of Chapter [117](#) KZC.
 - 2) Rooftop appurtenances and their screens as regulated in KZC 115.
 - 3) Decorative parapets or peaked roofs approved through design review pursuant to Chapter [142](#) KZC.
 - 4) Rooftop solar panels or other similar energy devices provided that the equipment is mounted as flush to the roof as feasible.
- c. Permitted Increases in Height – The following permitted increases in building height shall be reviewed by the City as part of the shoreline permit required for the proposed development activity.

- 1) In the Natural shoreline environment, the structure height of a detached dwelling unit may exceed the standard height limit by a maximum of 5 feet above average building elevation if a reduction in the footprint of the building is sufficient to lessen the impact on a sensitive area and sensitive area buffer. The City shall include in the written decision any conditions and restrictions that it determines are necessary to eliminate or minimize any undesirable effects of approving the exception.
- 2) In the Residential – M/H and Urban Conservancy shoreline environments located south of Market Street, the structure height of a commercial, recreational, institutional, utility or residential use, other than a detached dwelling unit, may be increased to 35 feet above average building elevation if:
 - a) Obstruction of views from existing development lying east of Lake St S or Lake Washington Boulevard is minimized. The applicant shall be responsible for providing sufficient information to the City to evaluate potential impacts to views; and either
 - b) The increase is offset by a view corridor that is superior to that required by KZC Section 83.410.
- 3) Properties in the PLA 15A zone in the UM Shoreline Environment that contain mix use development where building heights have been previously established under an approved Master Plan shall comply with the building height requirements as approved. Modifications to the approved building heights shall be considered under the standards established in the Master and in consideration of the compatibility with adjacent uses and the degree to which public access, use and views are provided.
- 4) In all shoreline environments, the maximum height may be increased up to 35 feet if the City approves a Planned Unit Development under the provisions of KZC Chapter 125.

83.200 Residential Uses

1. General – Residential uses shall not occur over water, including houseboats, live-aboards, or other single- or multi-family dwelling units.
2. Detached Dwelling Units in the Residential-L environment- Not more than one dwelling unit shall be on each lot, regardless of the size of each lot, except an accessory dwelling unit.
3. Accessory Structures or Uses - Accessory uses and structures shall be located landward of the principal residence, unless the structure is or supports a water-dependent use.

83.210 Commercial Uses

1. Float Plane Landing and Mooring Facilities –
 - a. Use of piers or docks for commercial float plane service shall be allowed only in public or private marinas and shall be subject to a conditional use permit.
 - b. Any shoreline conditional use permit for float plane use shall specify:
 - 1) Taxiing patterns to be used by float planes that will minimize noise impacts on area residents and wildlife and minimize interference with navigation and moorage;
 - 2) Float plane facilities and services shall conform to all applicable City codes and Federal Aviation Administration standards and requirements for fuel, oil spills, safety and firefighting equipment, noise, and pedestrian and swimming area separation; and
 - 3) Hours of operation may be limited to minimize impacts on nearby residents.
2. Retail establishment providing new or used Boat Sales or Rental – Outdoor boat parking and storage areas must be buffered as required for a parking area under the provisions of KZC 83.440.

3. Retail Establishment Providing Gas and Oil Sale for Boats –
 - a. The location and design of fueling facilities must meet applicable state and federal regulations.
 - b. Storage of petroleum products shall not be located over water.
 - c. Storage tanks shall be located underground and shall comply with state and federal standards for Underground Storage Tanks.
 - d. Fueling stations shall be located and designed to allow for ease of containment and spill cleanup.
 - e. New fueling facilities shall incorporate the use of automatic shutoffs on fuel lines and at hose nozzles to reduce fuel loss.
 - f. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum products shall be provided.
 - g. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.
4. Retail Establishment Providing Boat and Motor Repair and Service –
 - a. Storage of parts shall be conducted entirely within an enclosed structure.
 - b. If hull scraping, boat painting, or boat cleaning services is provided, boats shall be removed from the water and debris shall be captured and disposed in a proper manner.
 - c. Repair and service activities shall be conducted on dry land and either totally within a building or totally sight screened from adjoining property and the right-of-way.
 - d. All dry land motor testing shall be conducted within a building.
 - e. An appropriate storage, transfer, containment, and disposal facility for liquid material, such as oil, harmful solvents, antifreeze, and paints shall be provided and maintained.
 - f. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum or hazardous products shall be provided.
5. Restaurant or Tavern –
 - a. The design of the site must be compatible with the scenic nature of the waterfront.
 - b. Drive-in or drive-through facilities are prohibited.

83.220 Recreational Uses

1. Motorized Boats – See KMC Chapter 14.24, Operation of Watercraft, for prohibition of use within restricted shoreline areas and established speed limits.
2. Floats/swim platforms – Only public floats/swim platforms are permitted.
3. Marina, Piers, Moorage Buoy or Pilings, Boat Facility and Boat Canopies – See standards contained in KZC Section 83.270 through 290.
4. Tour Boat Facility – Tour Boat Facilities shall be designed to meet the following standards:
 - a. Size – The City will determine the maximum capacity of the tour boat facility based on the following factors:
 - 1) The suitability of the environmental conditions, such as, but not limited to, a consideration of the following conditions: the presence of submerged aquatic vegetation, proximity to shoreline associated wetlands, critical nesting and spawning areas, water depth, water circulation, sediment inputs and accumulation, and wave action

- 2) The ability of the land landward of the high waterline to accommodate the necessary support facilities.
 - b. Moorage structures supporting a tour boat facility shall comply with the moorage structure location standards and design standards for Marinas in KZC Section 83.290.
 - c. An on-site passenger loading area must be provided. The City shall determine the appropriate size of the loading area on a case-by-case basis, depending on the capacity of the tour boat and the extent of the abutting right-of-way improvements.
 - d. Associated buildings and structures, other than moorage structure for the tour boat facility, shall not be permitted over water.
 - e. Tour boat facilities shall comply with applicable state and/or federal laws, including but not limited to those for registration, licensing of crew and safety regulations.
 - f. Tour boat facilities operated accessory to public parks shall comply with the standards in Chapter 14.36 KMC.
 - g. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.
5. Public Access Pier, Dock or Boardwalk –
- a. See KZC 83.360 for avoiding and minimizing impacts when locating, designing and constructing the use minimizing impacts
 - b. No accessory uses, buildings, or activities are permitted as part of this use.
 - c. See KZC 83.370 for federal and state approvals prior to submittal of a building permit for this use.
 - d. Must provide at least one (1) covered and secured waste receptacle upland of the OHWM.
 - e. All utility and service lines located waterward of the OHWM must be below the pier deck. All utility and service lines located upland of the OHWM shall be underground, where feasible.
 - f. Piers or docks shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night.
 - g. Structures must display the street address of the subject property. The address must be oriented to the lake with letters and numbers at least four inches high and visible from the lake.
 - h. Public access structures shall not be within 10 feet of a side property line, except that setbacks between moorage structures and north and south property lines may be decreased for over-water public use facilities that connect with waterfront public access on adjacent property.
 - i. Public access structures shall be separated from the outlet of a stream, including piped streams, by the maximum extent feasible, while meeting other required setback standards established under this section.
 - j. Pier structures shall comply with the moorage structure design standards for Marinas in KZC Section 83.290.3.b.2), except primary walkways and floats shall be no wider than 8 feet.
6. Boat Launch (for non-motorized boats) –
- a. Location Standards – Boat launches for non-motorized boats 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. Size - The applicant shall demonstrate that the proposed size of the boat launch is the minimum necessary to safely launch the intended craft.

- c. Design Standards – Boat launches for non-motorized boats shall be constructed of gravel or other similar natural material.
- 7. Boat Launch (for motorized boats) -
 - a. Location Standards –
 - 2) 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.
 - 3) Boat launches shall be designed and located according to the following criteria:
 - a) Separated from existing designated swimming areas by a minimum of 25 feet.
 - b) Meet KZC 83.360 for avoiding impacts to fish and wildlife habitats.
 - c) Located only at sites with suitable transportation and access. The applicant must demonstrate that the streets serving the boat launch can safely handle traffic generated by such a facility.
 - d) Not be located within 25 feet of a moorage structure not on the subject property; or within 50' of the outlet of a stream, including piped streams.
 - b. Size - The applicant shall demonstrate that the proposed length of the ramp is the minimum necessary to safely launch the intended craft. In no case shall the ramp extend beyond the point where the water depth is 6 feet below the OHWM, unless the City determines that a greater depth is needed for a public boat launch facility.
 - c. Design Standards –
 - 1) Preferred ramp designs, in order of priority, are:
 - a) Open grid designs with minimum coverage of lake substrate.
 - b) Seasonal ramps that can be removed and stored upland.
 - c) Structures with segmented pads and flexible connections that leave space for natural beach substrate and can adapt to changes in shoreline profile.
 - 2) The design shall comply with all regulations as stipulated by state and federal agencies, affected tribes, or others that have jurisdiction.
 - d. Boat launches shall provide trailer spaces, at least 10 feet by 40 feet, commensurate with projected demand.
- 8. Public Park - Recreation facilities that support non-water related, high-intensity activities, such as basketball and tennis courts, baseball and soccer fields and skate parks, shall be located outside of shoreline jurisdiction to the extent feasible.
- 9. Public Access Facility -
 - a. Fragile and unique shoreline areas with valuable ecological functions, such as wetlands and wildlife habitats, shall be used only for non-intensive recreation activities, such as trails, viewpoints, interpretative signage and similar passive and low-impact facilities.
 - b. Physical public access shall be located, designed and constructed to meet KZC 83.360 for net loss of shoreline ecological functions.

Deleted: local tribes

83.230 Transportation Facilities

- 1. General -
 - a. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.

- b. Transportation facilities shall utilize existing transportation corridors whenever feasible; provided, that facility additions and modifications that will not adversely impact shoreline resources and otherwise consistent with this program are allowed. If expansion of the existing corridor will result in significant adverse impacts, then a less disruptive alternative shall be utilized.
 - c. When permitted within shoreline areas, transportation facilities must be placed and designed to minimize negative aesthetic impacts upon shoreline areas and to avoid and minimize impacts to existing land uses, public shoreline views, public access, and the natural environment.
 - d. Transportation and utility facilities shall be required to make joint use of rights-of-way, and to consolidate crossings of water bodies to minimize adverse impacts to the shoreline.
 - e. Transportation facilities located in shoreline areas must be designed and maintained to prevent erosion and to permit the natural movement of surface water.
2. Construction and Maintenance –
- a. All debris and other waste materials from roadway construction and maintenance shall be disposed of in such a way as to prevent their entry into any water body.
 - b. All shoreline areas disturbed by facility construction and maintenance shall be replanted and stabilized with approved riparian vegetation by seeding, mulching, or other effective means immediately upon completion of the construction or maintenance activity. Such vegetation shall be maintained until established.
 - c. Clearing of vegetation within transportation corridors shall be the minimum necessary for infrastructure maintenance and public safety. The City shall give preference to mechanical means rather than the use of herbicides for roadside brush control on city roads in shoreline jurisdiction.
 - d. Construct facilities that cross streams to allow passage of fish inhabiting the stream or which may inhabit the stream in the future are allowed.
 - e. Construct facilities within the 100-year floodplain to allow for water pass-through are allowed.
3. Passenger-only Ferry Terminal –
- a. See KZC 83.360 for minimizing impacts when locating, designing, constructing and operating the use.
 - b. Associated buildings and structures, other than moorage structure for the ferry terminal shall not be permitted over water.
 - c. Equipment storage shall be conducted entirely within an enclosed structure.
 - d. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum or hazardous products shall be provided.
 - e. The City will make the determination if any parking and/or a passenger loading area will be required.
4. Water Taxi –
- a. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use.
 - b. Equipment storage shall be conducted entirely within an enclosed structure.
 - c. Facilities, equipment and established procedures for the containment, recovery and mitigation of spilled petroleum or hazardous products shall be provided.
5. Arterials, Collectors, and Neighborhood Access Streets and Bridges –

- a. New street and bridge construction in shoreline jurisdiction shall be minimized and allowed only when related to and necessary for the support of permitted shoreline activities.
- b. Streets other than those providing access to approved shoreline uses shall be located away from the shoreline, except when no reasonable alternate location exists.
- c. Any street expansion affecting streams and waterways shall be designed to allow fish passage and minimum impact to habitat.
- d. Drainage and surface runoff from streets and street construction or maintenance areas shall be controlled so that pollutants will not be carried into water bodies.
- e. Streets within shoreline jurisdiction shall be designed with the minimum pavement area feasible.
- f. Streets shall be designed to provide frequent safe crossings for pedestrians and bicycles seeking access to public portions of the shoreline.
- g. Low impact development techniques shall be used where feasible for roadway or pathway and related drainage system construction.
- h. Street alignments shall be designed to fit the topography so that alterations of the natural site conditions will be minimized.
- i. New and expanded streets or bridges shall be designed to include pedestrian amenities such as benches or view stations and public sign systems if an area is available for the improvement that identifies significant features along the shoreline.
- j. Vegetation and street trees shall be selected and located so that they do not impair public views of the lake from public rights of way to the maximum extent feasible.
- k. Shoreline street ends may be used for public access or recreational purposes.
- l. Shoreline street ends shall not be vacated except in compliance with RCW 35.79.035 or its successor, as well as KMC 19.16.090.

83.240 Utilities

1. General –

- a. See KZC 83.360 for avoiding and minimizing impacts when locating, designing, constructing and operating the use
- b. Whenever feasible, utility facilities shall be located outside the shorelines area. Whenever these facilities must be placed in a shoreline area, the location shall be chosen so as not to adversely impact shoreline ecological functions or obstruct scenic views.
- c. Utilities shall be located in existing rights-of-way and utility corridors wherever feasible.
- d. New utilities shall not be located waterward of the OHWM or in the Natural shoreline environment unless it is demonstrated that no feasible alternative exists.
- e. Utility lines, pipes, conduits, cables, meters, vaults, and similar infrastructure and appurtenances shall be placed underground consistent with the standards of the serving utility to the maximum extent feasible.
- f. Proposals for new utilities or new utility corridors in the shoreline jurisdiction must fully substantiate the infeasibility of existing routes or alternative locations outside of the shoreline jurisdiction.
- g. Utilities which are accessory and incidental to a shoreline use shall be reviewed under the provisions of the use to which they are accessory.
- h. Utilities shall provide screening of facilities from water bodies and adjacent properties in a manner that is compatible with the surrounding environment. The City will determine the type of screening on a case-by-case basis.

- i. Utility development shall, through coordination with local government agencies, provide for compatible, multiple use of sites and rights-of-way. Such uses include shoreline access points, trail systems and other forms of recreation and transportation, providing such uses will not unduly interfere with utility operations, or endanger public health and safety.
2. Construction and Maintenance –
 - a. All shoreline areas disturbed by utility construction and maintenance shall be replanted and stabilized with approved vegetation by seeding, mulching, or other effective means immediately upon completion of the construction or maintenance activity. Such vegetation shall be maintained until established.
 - b. Clearing of vegetation within utility corridors shall be the minimum necessary for installation, infrastructure maintenance and public safety.
 - c. Construction of pipelines placed under aquatic areas shall be placed in a sleeve in order to avoid the need for excavation in the event of a failure in the future.
 - d. Construction located near wetlands and streams shall use native soil plugs, collars or other techniques to prevent potential dewatering impacts.
 - e. See KZC 83.480 for conducting maintenance activities that minimize impacts.
3. Utility production and processing facilities - Utility production and processing facilities not dependent on a shoreline location shall be located outside of the shoreline jurisdiction, unless it is demonstrated that no feasible alternative location exists.
4. Utility Transmission Facilities –
 - a. Transmission facilities shall be located outside the shoreline jurisdiction where feasible, and when necessarily located within shoreline areas, shall assure no net loss of shoreline ecological functions.
 - b. Pipelines transporting hazardous substances or other substances harmful to aquatic life or water quality are prohibited, unless it is demonstrated that no feasible alternative exists.
 - c. Sanitary sewers shall be separated from storm sewers.
5. Personal Wireless Service Facilities – Personal Wireless Service Facilities shall use concealment strategies to minimize the appearance of antennas and other equipment from the lake and public pedestrian pathways or public use areas.

83.250 Land Division

1. New lots created through land division in the shoreline shall only be permitted when the following standards are met:
 - a. The lots created will not require structural flood hazard reduction measures, such as dikes, levees, or stream channel realignment, during the life of the development or use.
 - b. The lots created will not require hard structural shoreline stabilization measures in order for reasonable development to occur, as documented in a geotechnical analysis of the site and shoreline characteristics.
 - c. In the Natural and Urban Conservancy Environments, the lots created shall contain buildable land area located outside of the shoreland area.
2. Land Division, except those for lot line adjustment and lot consolidation purposes, shall provide public access as provided for in KZC Section 83.420, unless otherwise excepted or modified under the provisions of KZC 83.420.
3. Land Divisions shall establish a prohibition on new private piers and docks on the face of the plat. An area for joint use moorage may be approved if it meets all requirements for shared moorage in KZC Section 83.270.

4. View corridors, established as part of a land division, shall be depicted on the face of the recorded document.

Shoreline Modification Regulations

83.260 General

1. See KZC 83.360 for No Let Loss Standard and mitigation sequencing.
2. KZC 83.370 for federal and state approval required prior to submittal of a building permit.
3. KZC 83.430 for In Water Construction.
4. Structures must be designed to preclude moorage in locations that would have insufficient water depth to avoid boats resting at any time of year to on the substrate.

83.270 Piers, Docks, Moorage Buoys and Piles, Boatlifts and Boat Canopies Serving a Detached Dwelling Unit Use

1. General –

- a. Piers, Docks, Moorage Buoys and Piles, Boatlifts and Canopies may only be developed and used accessory to existing dwelling units on waterfront lots or upland lots with waterfront access rights. Use of these structures is limited to the residents and guests of the waterfront lots to which the moorage is accessory. Moorage space shall not be leased, rented, or sold unless otherwise approved as a Marina under the provisions of KZC 83.290.
- b. In the following circumstances, a joint use pier shall be required::
 - 1) On lots subdivided to create additional lots with waterfront access rights.
 - 2) New residential development of two or more dwelling units with waterfront access rights.
- c. Piers, docks, boatlifts and moorage piles shall be designed and located to meet KZC 83.360 No Net Loss standard and Mitigation Sequencing.
- d. See KZC 83.370 for structures proposed to be extended waterward of the Inner Harbor Line.

2. Setbacks

- a. All piers, docks, boatlifts and moorage piles for Detached Dwelling Unit Use shall comply with the following location standards:

New Pier, Dock, Boatlift and Moorage Pile for Detached Dwelling Unit	Minimum Setback Standards
Side property lines	10 ft.
Another moorage structure not on the subject property, excluding adjacent moorage structure that does not comply with required side property line setback	25 ft.
Outlet of a stream regulated under KZC 90, including piped streams	Maximum distance feasible while meeting other required setback standards established under this section
Public park	25 ft., except that this standard shall not apply within the Urban Mixed shoreline environment.

- b. Joint-use structures may abut property lines provided the property owners sharing the moorage facility have mutually agreed to the structure location. To insure that a pier is shared, each property owner must sign a statement in a form acceptable to the City Attorney, stating that the pier or dock is used by the other property. The applicant must file this statement with the King County Recorder's Office to run with the properties.

3. General Standards –

- a. Proposed piers and docks that do not comply with the dimensional standards contained in this Chapter or cannot be permitted through the Administrative Approval for Alternative Design process in this Chapter may only be approved if they obtain a shoreline variance under the provisions of KZC Chapter 141.70.3.
- b. All piers and docks and other developments regulated by this section shall be constructed and maintained in a safe and sound condition. Abandoned or unsafe structures shall be removed or repaired promptly by the owner.
- c. Temporary moorages shall be permitted for vessels used in the construction of shoreline facilities. The design and construction of temporary moorages shall be such that upon termination of the project, the aquatic habitat in the affected area can be returned to its original (pre-construction) condition.
- d. The following structures and improvements are not permitted:
 - a.) Covered moorage, boathouses, or other walled covered moorage, except boat canopies that comply with the standards in this subsection.
 - b.) Skirting on any structure
 - c.) Aircraft moorage
- e. See KZC 83.470 Lighting Standards for required lighting.
- f. Piers and docks must display the street address of the subject property. The address must be oriented to the lake with letters and numbers at least 4 inches high.
- g. Piers and docks shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night. Exterior finish of all structures and windows shall be generally non-reflective.
- h. Must provide at least one (1) covered and secured waste receptacle.
- i. All utility and service lines located waterward of the OHWM must be below the pier deck. All utility and service lines located upland of the OHWM shall be underground, where feasible.

4. New Pier or Dock Dimensional Standards –

- a. New piers or docks may be permitted, subject to the following regulations:

New Pier, Dock or Moorage Piles for Detached Dwelling Unit (single family)	Dimensional and Design Standards
Maximum Area: surface coverage, including all attached float decking, ramps, ells and fingers	480 sq. ft. for single property owner 700 sq. ft. for joint-use facility used by 2 residential property owners 1000 sq. ft. for joint-use facility used by 3 or more residential property owners These area limitations shall include platform lifts Where a pier cannot reasonably be constructed under the area limitation above to obtain a moorage depth of 10 ft. measured above ordinary high water, an additional 4 sq. ft. of area may be added for each additional foot of pier length needed to reach 10 feet of water

	depth.
Maximum Length for piers, docks, ells, fingers and attached floats	150 ft, but piers or docks extending further waterward than adjacent piers or docks must demonstrate that they will not have an adverse impact on navigation. 26 ft. for ells 20 ft. for fingers and float decking attached to a pier
Maximum Width	4 ft. for pier or dock 6 ft. for ells 2 ft. for fingers 6 ft. for float decking attached to a pier, must contain a minimum of 2 ft. of grating down the center of the entire float.
Height of piers and diving boards	Minimum of 1.5 ft. above ordinary high water to bottom of pier stringers, except the floating section of a dock and float decking attached to a pier Maximum of 3 feet above deck for diving boards or similar features above the deck surface Maximum of 3 feet above deck for safety railing, which shall be an open framework
Minimum Water Depth for ells and float decking attached to a pier	Must be in water with depths of 9 feet or greater at the landward end of the ell or finger. Must be in water with depths of 10 feet or more at the landward end of the float
Decking for piers, docks walkways, platform lifts, ells and fingers	Piers and docks and platform lifts must be fully grated or contain other materials that allow a minimum of 40% light transmittance through the material If float tubs for docks preclude use of fully grated decking material, then a minimum of 2 ft. of grating down the center of the entire float shall be provided
Location of ells, fingers and deck platforms	30 ft. waterward of the OHWM Within 30 ft. of the OHWM, only the access ramp portion of pier or dock is allowed
Pilings, Moorage Piles, and Buoys	Piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds. First set of piles located no closer than 18 ft from OHWM Maximum 2 moorage piles or buoys per detached dwelling unit, including existing piles Maximum 4 moorage piles or buoys for joint use piers or docks, including existing piles
Mitigation	Plantings or other mitigation as described below in KZC 83.270.5

- b. The City shall approve the following modifications to new pier proposals that deviate from the dimensional standards of KZC 83.270.4 if the following requirements and all other applicable provisions in this Chapter are met:

Administrative Approval for Alternative Design of New Pier or Dock for Detached Dwelling Unit (single family)	Requirements
State and Federal Agency Approval	U.S. Army Corps of Engineers, and the Washington Department of Fish and Wildlife have approved proposal.
Maximum Area	No larger than authorized through state and federal approval
Maximum Width	4 ft. for portion of pier or dock located within 30 feet of the OHWM; otherwise, 6 feet for walkways and ell Otherwise, the pier and all components shall meet the standards noted in KZC 83.270.4
<u>Minimum Depth</u>	<u>No shallower than authorized through state and federal approval</u>

5. **Mitigation.** All proposals involving new private piers or docks are subject to the following mitigation requirements:
- 1) Any existing in-water and overwater structures shall be removed if they are associated with either a moorage structure or other recreational use that is located within 30 feet of the OHWM.
 - 2) Emergent vegetation shall be planted waterward of the OHWM, unless the City determines that it is not appropriate or feasible.
 - 3) Native riparian vegetation shall be planted in at least 75 percent of the nearshore riparian area located along the water's edge. The vegetated portion of the nearshore riparian area shall average ten (10) feet in depth from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. Joint-use piers required under the provisions of this Chapter shall require a vegetative riparian zone along all properties sharing the pier. Other joint-use piers shall be required to provide the same mitigation as required for one property, which can be slit evenly between the subject properties.
 - 4) Mitigation plantings shall be subject to the following requirements:
 - a) Restoration of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline must be included in the plan. Plant materials must be native and selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester. Plant density and spacing shall be appropriate for the site and commensurate with spacing recommended for each individual species proposed. An alternative planting plan or mitigation measure in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies.

In addition, the City shall accept existing native trees, shrubs and groundcover as

meeting the requirements of this section, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation.

- b) Vegetation placement – See the provisions contained in KZC 83.400.
- 5) In addition to a native planting plan, a 5 -year vegetation maintenance and monitoring plan shall be submitted to the City for approval. The monitoring plan shall include the following performance standards:
 - a) Preparation of as-built drawings after installation of the mitigation plantings;
 - b) Annual monitoring reports for 5 years, that include written and photographic documentation on tree and shrub mortality, subject to the following success criteria:
 - i. One-hundred (100) percent survival of all planted native trees and shrubs during the first two years after planting; and
 - ii. One hundred (100) percent survival of trees and eighty (80) percent survival of remaining native plants in years three through five.

Copies of reports that are submitted to state or federal agencies in compliance with permit approvals may be submitted in lieu of a separate report to the City, provided that the reports address a 5 year maintenance and monitoring plan.
- 6) Woody debris existing on-site or contributed to the site as part of the mitigation efforts shall not be removed.
- 6. Replacement of Existing Pier or Dock –
 - a. A replacement of an existing pier or dock shall meet the following requirements:

Replacement of Existing Pier or Dock for Detached Dwelling Unit (single family)	Requirements
Replacement of entire existing pier or dock, including piles OR more than 50 percent of the pier-support piles and 50 percent of the decking or decking substructure (e.g. stringers)	Must meet the dimensional and design standards for new piers as described in KZC 83.270.4, except the City may administratively approve an alternative design described in subsection b. below.
Mitigation	Existing skirting shall be removed and may not be replaced Existing in-water and overwater structures located within 30 feet of the OHWM, except for existing or authorized shoreline stabilization measures or piers or docks, shall be removed

- b. Alternative Design - The City shall approve pier replacement proposals that deviate from the dimensional standards of KZC 83.270.4 if the following requirements and all other provisions of this Chapter are met:

Administrative Approval for Alternative Design of Replacement Pier or Dock for Detached Dwelling Unit	Requirements
State and Federal Agency Approval	U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved proposal.
Maximum Area	No larger than existing pier
Maximum Length	26 ft. for fingers and float decking attached to a pier Otherwise, the pier and all components shall meet the standards noted in KZC 83.270.4
Maximum Width	8 ft. for ells and float decking attached to a pier Otherwise, the pier and all components shall meet the standards noted in KZC 83.270.4
<u>Minimum Depth</u>	<u>No shallower than authorized through state and federal approval</u>

7. Additions to Pier or Dock –

Proposals involving the modification and/or enlargement of existing private piers or docks must comply with the following requirements:

<u>Addition to Existing Pier or Dock for Detached Dwelling Unit (single family)</u>	<u>Requirements</u>
Addition or enlargement	Must demonstrate that there is a need for the enlargement of an existing pier or dock. Examples of need include, but are not limited to safety concerns or inadequate depth of water.
Dimensional standards	Enlarged portions must comply with the new pier or dock standards for length and width, height, water depth, location, decking and pilings and for materials as described in KZC

	83.270.
Decking for piers, docks walkways, ells and fingers	Must convert an area of existing nearshore decking to grated decking equivalent in size to the additional surface coverage
Mitigation	Planting and other mitigation as described in KZC 83.270.5. Existing skirting shall be removed and may not be replaced Existing in-water and overwater structures located within 30 feet of the OHWM, except for existing or authorized shoreline stabilization measures or pier or docks, shall be removed at a 1:1 ratio to the area of the addition

8. Repair of Existing Pier or Dock–

a. Repair proposals that replace only decking or decking substructure and less than 50 percent of the existing pier-support piles must comply with the following regulations:

<u>Repair of Existing Pier or Dock for Detached Dwelling Unit (single family)</u>	<u>Requirements</u>
Replacement piles	Must use materials as described under KZC 83.270.5 Must minimize the size of piles and maximize the spacing between pilings to the extent allowed by site-specific engineering or design considerations
Replacement of 50 percent or more of the decking or 50 percent or more of decking substructure	Must replace any solid decking surface located within the nearshore 30 feet of the pier or dock with a grated surface material

b. Other repairs to existing legally established moorage facilities where the nature of the repair is not described in the above subsections shall be considered minor repairs and are permitted, consistent with all other applicable codes and regulations. If cumulative repairs of an existing pier or dock would make a proposed repair exceeds the threshold for a replacement pier established in KZC 83.270.5, above, the repair proposal shall be reviewed under KZC 83.270.4 for a new pier or dock, , except as described in KZC 83.270.5.b for administrative approval of alternative design.

9. Boatlifts, Boatlift Canopies and Moorage Piles –

Boatlifts, boatlift canopies and moorage piles may be permitted as an accessory to piers and docks, subject to the following regulations:

Boatlift, Boat Canopy and Moorages Buoy for Detached Dwelling Unit (single family)	Requirements
Location	<p>Boat lifts shall placed as far waterward of the OHWM as feasible and safe, within the limits of the dimensional standards for piers established in KZC 83.270.4</p> <p>Bottom of a boatlift canopy shall be elevated above the boatlift to the maximum extent feasible, the lowest edge of the canopy must be a least 4 ft. above the ordinary high water, and the top of the canopy must not extend more than 4 ft. above an associated pier.</p> <p>Moorage piles or buoys shall not be closer than 30 ft. from OHWM or any farther waterward than the end of the pier or dock</p> <p>Moorage piles or buoys shall be located no further than 12 ft. from a pier or dock</p>
Maximum Number	<p>1 free-standing or deck-mounted boatlift per detached dwelling unit</p> <p>2 jet ski lifts or 1 fully grated platform lift per detached dwelling unit use</p> <p>1 boatlift canopy per detached dwelling unit, including joint use piers</p> <p>2 moorage piles per detached dwelling unit, including existing piles</p> <p>4 moorage piles for joint use piers or docks, including existing piles</p>
Canopy Materials	<p>Must be made of translucent fabric materials.</p> <p>Must not be constructed of permanent structural material.</p>
Fill for Boatlift	<p>Maximum of 2 cubic yards of fill are permitted to anchor a boatlift, subject to the following requirements:</p> <ul style="list-style-type: none"> • May only be used if the substrate prevents the use of anchoring devices which 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

	<ul style="list-style-type: none"> • Minimum amount of fill is utilized to anchor the boatlift
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83.280 Piers, Docks, Boat lifts and Canopies Serving Detached, Attached or Stacked Dwelling Units (multi-family)

1. General –

- a. Piers, Docks, Moorage Buoy and Piles, Boatlifts and Canopies may only be developed and used accessory to existing dwelling units on waterfront lots or upland lots with waterfront access rights. Use of these structures is limited to the residents and guests of the waterfront lots to which the moorage is accessory. Moorage space shall not be leased, rented, or sold unless otherwise approved as a Marina under the provisions of KZC 83.290.
- b. Piers, docks, boatlifts and moorage piles shall be designed and located to meet KZC 83.360 Mitigation Sequencing.
- c. See KZC 83.370 for structures to be extended waterward of the Inner Harbor Line.

2. Setbacks –

All piers, docks, boatlifts and moorage piles serving Detached, Attached or Stacked Dwelling Units shall comply with the following setback standards:

New Pier, Dock, Boatlift and Moorage Pile for Detached, Attached or Stacked Dwelling Units (multi-family)	Minimum Setback Standards
Side property lines	10 ft.
Lot containing a detached dwelling unit	The area defined by a line that starts where the OHWM of the lot intersects the side property line of the lot closest to the moorage structure and runs waterward toward the moorage structure and extends at a 30° angle from that side property line. This setback applies whether or not the subject property abuts the lot, but does not extend beyond any intervening overwater structure. This standard shall not apply within the Urban Mixed shoreline environment.
Another moorage structure not on the subject property, excluding adjacent moorage structure that does not comply with required north and south property line setback	25 ft.
Outlet of a stream regulated under KZC 90, including piped streams	Maximum distance feasible while meeting other required setback standards established under this section
Public park	100 feet; or The area defined by a line that starts where the OHWM of the park intersects with the side property line of the park closest to the moorage structure and extends at a 45°

	<p>angle from the side property line. This setback applies whether or not the subject property abuts the park, but does not extend beyond any intervening over water structure. This standard shall not apply within the Urban Mixed shoreline environment.</p>
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3. Number of Moorage Spaces – The City will limit the total number of moorages to one per each dwelling unit on the subject property. In addition, each unit shall be allowed to moor jet skis or kayaks or similar watercraft on the property.
4. General Standards -
 - a. The design of the site must be compatible with the scenic nature of the waterfront.
 - b. Must provide at least 2 covered and secured waste receptacles upland of the OHWM.
 - c. All utility and service lines located waterward of the OHWM must be below the pier deck. All utility and service lines located upland of the OHWM shall be underground, where feasible.
 - d. Moorage facilities shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night.
 - e. Exterior finish shall be generally non-reflective.
 - f. Moorage structures must display the street address of the subject property. The address must be oriented to the lake with letters and numbers at least four inches high.
 - g. See KZC 83.470 Lighting Standards for required lighting.
 - h. The following structures and improvements are not permitted:
 - a.) Covered moorage, boathouses, or other walled covered moorage, except boat canopies that comply with the standards in this subsection.
 - b.) Skirting on any structure
 - c.) Aircraft moorage
5. New Pier or Dock Dimensional Standards -
 - a. Moorage structures shall not be larger than is necessary to provide safe and reasonable moorage for the boats to be moored. The City will specifically review the size and configuration of each proposed moorage structure to help ensure that:
 - 1) The moorage structure does not extend waterward beyond the point necessary to provide reasonable draft for the boats to be moored, but not beyond the outer harbor line;
 - 2) The moorage structure is not larger than is necessary to moor the specified number of boats;
 - 3) The moorage structure will not interfere with the public use and enjoyment of the water or create a hazard to navigation; and
 - 4) The moorage structure will not have a significant long-term adverse effect on ecological functions.
 - b. Piers and docks shall be the minimum size necessary to meet the needs of the proposed water-dependent use and shall observe the following standards:

New Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (multi-family)	Dimensional and Design Standards
Maximum Width	<p>4 ft. within 30 ft of the OHWM for pier, dock or floating deck 6 ft. for pier or dock more than 30 ft. waterward of the OHWM 8 ft. for ells 4 ft. for fingers, and shall be reduced to 2 feet in those instances where the projection provides secure boat moorage but is not necessary for boat-user access. 6 ft. for float decking attached to a pier</p> <p>An alternative design in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies.</p>
Height of piers and diving boards	<p>Minimum of 1.5 ft above ordinary high water to bottom of pier stringers, except the floating section of a dock and float decking attached to a pier Maximum of 3 ft. above deck for diving boards or similar features above the deck surface Maximum of 3 feet above deck for safety railing, which shall be an open framework</p>
Minimum Water Depth for ells and float decking attached to a pier	<p>Must be in water with depths of 9 feet or greater at the landward end of the ell or finger. Must be in water with depths of 10 feet or more at the landward end of the float</p>
Decking for piers, docks walkways, platform lifts, ells and fingers	<p>Must be fully grated or contain other materials that allow a minimum of 40% light transmittance through the material If float tubs for docks preclude use of fully grated decking material, then a minimum of 2 ft. of grating down the center of the entire float shall be provided</p>
Location of ells, fingers and deck platforms	<p>No closer than 30 ft. waterward of the OHWM Within 30 ft. of the OHWM, only access ramp portion of pier or dock is allowed</p>
Pilings and Moorage Piles	<p>First set of piles located no closer than 18 ft from OHWM Pilings shall be composed of steel, concrete, plastic or untreated wood. Piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds.</p>
Mitigation	<p>Plantings and other mitigation as described in KZC 83.280.6 below.</p>

6. Mitigation –

All proposals involving new piers or docks are subject to the following mitigation requirements:

- a. Any existing in-water and overwater structures shall be removed if they are associated with either a moorage structure or other recreational use that is located within 30 feet of the OHWM.
- b. Emergent vegetation shall be planted waterward of the OHWM, unless the City determines that it is not appropriate or feasible.
- c. Native riparian vegetation shall be planted in at least 75 percent of the nearshore riparian area located along the water's edge. The vegetated portion of the nearshore riparian area shall average ten (10) feet in depth from the OHWM, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. Joint-use piers will require a vegetative riparian zone along all properties sharing the pier.
- d. Mitigation plantings shall be subject to the following requirements:
 - 1) Restoration of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline must be included in the plan. Plant materials must be native and selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester. Plant density and spacing shall be appropriate for the site and commensurate with spacing recommended for each individual species proposed.
 - 2) An alternative planting plan or mitigation measure in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies. In addition, the City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this section, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation.
 - 3) Vegetation placement – See the provisions contained in Section 83.400.
 - 4) In addition to a native planting plan, a 5 -year vegetation maintenance and monitoring plan shall be submitted to the City for approval. The monitoring plan shall include the following performance standards:
 - a) Preparation of as-built drawings after installation of the mitigation plantings;
 - b) Annual monitoring reports for 5 years, that include written and photographic documentation on tree and shrub mortality, subject to the following success criteria:
 - i) One hundred (100) percent survival of all planted native trees and shrubs during the first two years after planting; and
 - ii) One hundred (100) percent survival of trees and eighty (80) percent survival of remaining native plants in years three through five.Copies of reports that are submitted to state or federal agencies in compliance with permit approvals may be submitted in lieu of a separate report to the City, provided that the reports address a 5 year maintenance and monitoring plan.
 - c) Woody debris existing on-site or contributed to the site as part of the mitigation efforts shall not be removed.

7. Replacement, Additions and Repairs -

- a. Replacement - Replacement of Piers and Docks serving Detached, Attached or Stacked Dwelling Units shall be considered under the provisions for New Piers and Docks Serving Detached, Attached or Stacked Dwelling Units established in KZC 83.280.
- b. Additions – Proposals involving the modification and/or enlargement of existing piers or docks must comply with the following measures:

Additions to Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (multi-family)	<u>Requirements</u>
Addition or enlargement	Must demonstrate that there is a need for the enlargement of an existing pier or dock. Examples of need include, but are not limited to, safety concerns or inadequate depth of water.
Dimensional standards	Enlarged portions must comply with the new pier or dock dimensional standards for length, width, height, water depth, location, decking and pilings and for materials as described in KZC 83.280.
Decking for piers, docks walkways, ells and fingers	Must convert an area of existing nearshore decking to grated decking equivalent in size to the additional surface coverage
Mitigation	<p>Plantings and other mitigation as described in KZC 83.280.6 above</p> <p>Existing skirting shall be removed and may not be replaced</p> <p>Existing in-water and overwater structures located within 30 feet of the OHWM, except for existing or authorized shoreline stabilization measures or pier or docks, shall be removed at a 1:1 ratio to the area of the addition</p>

- c. Repair– Repair proposals which replace only decking or decking substructure and less than 50 percent of the existing pier-support piles must comply with the following:

Repair to Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (Multi-family)	<u>Requirements</u>
Replacement piles	<p>Must use materials as described under KZC 83.280.5</p> <p>Must minimize the size of piles and maximize the spacing between pilings to the extent allowed by site-specific engineering or design</p>

	considerations
Replacement of 50 percent or more of the decking or 50 percent or more of decking substructure	Must replace any solid decking surface located within the nearshore 30 feet of the pier or dock with a grated surface material

Other repairs to existing legally established moorage facilities where the nature of the repair is not described in the above subsections shall be considered minor repairs and are permitted, consistent with all other applicable codes and regulations. If cumulative repairs of an existing pier or dock would make a proposed repair exceeds the threshold established in KZC 83.280.5.b, above, the repair proposal shall be reviewed under KZC 83.280 for a new pier or dock.

8. Boatlifts, Boatlift Canopies and Moorage Piles for serving Detached, Attached or Stacked Dwelling Units –

Boatlifts, boatlift canopies and moorage piles may be permitted as an accessory to piers and docks, subject to the following regulations:

Boatlift, Boat Canopy and Moorages Buoy for Detached, Attached or Stacked Dwelling Units (multi-family)	Regulations
Location	<p>Boat lifts shall placed as far waterward of the OHWM as feasible and safe, within the limits of the dimensional standards for piers and docks established in KZC 83.280.5</p> <p>Bottom of a boatlift canopy shall be elevated above the boatlift to the maximum extent feasible, the lowest edge of the canopy must be a least 4 ft. above the OHWM.</p> <p>Moorage piles shall not be closer than 30 ft. from OHWM or any farther waterward than the end of the pier or dock</p> <p>Moorage piles shall be located within 12 ft. of a pier or dock</p>
Maximum Number	<p>1 freestanding or deck-mounted boatlift is allowed per dwelling unit on the subject property.</p> <p>2 jet ski lifts or 1 fully grated platform lift is permitted per dwelling unit on the subject property.</p> <p>2 boatlift canopies or equal to 10 percent of the dwelling units on the subject property, whichever is greater.</p>
Canopy Materials	<p>Must be made of translucent fabric materials.</p> <p>Must not be constructed of permanent structural material.</p>

Deleted: , and the top of the canopy must not extend more than 4 ft. above an associated pier.

Fill for Boatlift	<p>Maximum of 2 cubic yards of fill are permitted to anchor a boatlift, subject to the following requirements:</p> <ul style="list-style-type: none"> • May only be used if the substrate prevents the use of anchoring devices which 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
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9. Submittal Requirements - In addition to submitting an application to construct a new, enlarged or replacement pier or dock, the applicant shall submit an assessment of the impacts and measures taken to avoid, minimize, and mitigate impacts. See Section 83.360 KZC for information on mitigation sequencing.

83.290 Marinas and Moorage Facilities Associated with Commercial Uses

1. General –

- a. Marinas shall not be approved in cases where it is reasonably foreseeable that the development or use would require maintenance dredging and/or installation of a breakwater during the life of the development or use.
- b. See KZC 83.370 for structures to be extended waterward of the Inner Harbor Line.
- c. Marinas shall be designed and located according to the following criteria:
 - 1) Shall not interfere with the public use and enjoyment of the water or create a hazard to navigation;
 - 2) Shall meet KZC 83.360 for Mitigation Sequencing; and
 - 3) Shall be located only at sites with sufficient water depth, adequate navigational and vehicular access, and not adjacent to an outlet of a stream.

2. Setback –

Marinas and moorage facilities shall comply with the following location standards:

Marinas and Moorage Facilities Associated with Commercial Uses	Minimum Setback Standards
Side property lines	10 ft.
Lot containing a detached dwelling unit	The area defined by a line that starts where the OHWM of the lot intersects the side property line of the lot closest to the moorage structure and runs waterward toward the moorage structure and extends at a 30° angle from that side property line. This setback applies whether or not the subject property abuts the lot, but does not extend beyond any intervening overwater structure. This standard shall not apply

	within the Urban Mixed shoreline environment.
Another moorage structure not on the subject property, excluding adjacent moorage structure that does not comply with required north and south property line setback	25 ft.
Outlet of a stream regulated under KZC 90, including piped streams	Maximum distance feasible while meeting other required setback standards established under this section
Public park	100 feet; or The area defined by a line that starts where the OHWM of the park intersects with the side property line of the park closest to the moorage structure and extends at a 45° angle from the side property line. This setback applies whether or not the subject property abuts the park, but does not extend beyond any intervening over water structure. This standard shall not apply within the Urban Mixed shoreline environment.

3. Number of Moorage Slips –

The City will determine the maximum allowable number of moorages based on the following factors:

- 1) The suitability of the environmental conditions, such as, but not limited to: the presence of submerged aquatic vegetation, proximity to shoreline associated wetlands, critical nesting and spawning areas, water depth, water circulation, sediment inputs and accumulation, and wave action.
- 2) The ability of the land upland of the OHWM to accommodate the necessary support facilities.
- 3) The demand analysis submitted by the applicant to demonstrate anticipated need for the requested number of moorages.

4. General Standards -

- a. See KZC 83.370 for required state and federal approval.
- b. Structures, other than each moorage structure or public access pier, shall not be waterward of the OHWM. For regulations regarding public access piers, see KZC 83.220.
- c. At least 2 covered and secured waste receptacles shall be provided upland of the OHWM.
- d. Utility and service lines located waterward of the OHWM must be below the pier deck. Utility and service lines located upland of the OHWM shall be underground, where feasible.
- e. Public restrooms shall be provided upland of the OHWM.
- f. At least 1 pump-out facility for use by the general public shall be provided. This facility must be easily accessible to the general public and clearly marked for public use.
- g. Transient moorage may be required as part of a marina if the site is in an area near commercial facilities generating commercial transient moorage demand.

- h. Moorage facilities shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night.
- i. Exterior finish shall be generally non-reflective.
- j. Moorage structures must display the street address of the subject property. The address must be oriented to the lake with letters and numbers at least four inches high.
- k. See KZC 83.470 Lighting Standards for required lighting.
- l. Covered moorage, including boatlift canopies, is not permitted.
- m. Aircraft moorage is not permitted, except as associated with an approved float plane landing and mooring facility.
- n. Marinas and other moorage facilities associated with commercial uses shall be designed and operated consistent with federal and state water quality laws and established Best Management Practices (BMPs) for Marina Operators, including BMPs for bilge water discharge, hazardous waste, waste oil and spills, sewer management, and spill prevention and response. Rules for spill prevention and response, including reporting requirements, shall be posted on site.
- o. Boats moored within marinas shall comply with the mooring restrictions contained in Chapter 14.16 KMC.

5. New Pier or Dock Dimensional Standards –

- a. Moorage structures shall not be larger than is necessary to provide safe and reasonable moorage for the boats to be moored. The City will specifically review the size and configuration of each proposed moorage structure to help ensure that:
 - 1) The moorage structure does not extend waterward beyond the point necessary to provide reasonable draft for the boats to be moored, but not beyond the outer harbor line;
 - 2) The moorage structure is not larger than is necessary to moor the specified number of boats; and
 - 3) Must be designed to preclude moorage in locations that would have insufficient water depth to avoid boats resting at any time of year to on the substrate of the lake.
- b. For public access piers, docks or boardwalks associated with public parks and other public facilities see KZC 83.220.5 for allowed width of the structure.
- c. Piers and docks shall be the minimum size necessary to meet the needs of the proposed water-dependent use and shall meet the following dimensional and design standards:

New Marinas and Moorage Facilities Associated with Commercial Uses	Dimensional and Design Standards
Maximum Width	6 ft. for access ramp portion of pier or dock and primary walkways 8 ft. for ells 4 ft. for fingers, and shall be reduced to 2 feet in those instances where the projection provides secure boat moorage but is not necessary for boat-user access. 6 ft. for float decking attached to a pier. An alternative design in lieu of meeting these requirements may be

	allowed if approved by other state and federal agencies.
Height of piers, diving boards and railings	Minimum of 1.5 ft above ordinary high water to bottom of pier stringer, except the floating section of a dock and float decking attached to a pier Maximum of 3 ft. above deck for diving boards or similar features above the deck surface Maximum of 3 ft. above deck for safety railing, which shall be an open framework
Decking for piers, docks walkways, ells and fingers	Fully grated or contain other materials that allow a minimum of 40% light transmittance through the material If float tubs for docks preclude use of fully grated decking material, then a minimum of 2 ft. of grating down the center of the entire float shall be provided
Location of ells, fingers and deck platforms	No closer than 50 ft. waterward of the OHWM Within 50 ft. of the OHWM, only access ramp portion of pier or dock is allowed
Pilings	First set of piles located no closer than 18 ft from OHWM Pilings shall be composed of steel, concrete, plastic or untreated wood. Piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds.
Mitigation	As required through Mitigation Sequencing in KZC 83.360.

6. Replacement, Additions and Repairs –

- a. Replacement - Replacement of marinas or portions thereof shall be considered under the provisions for new marinas established in KZC 83.290.
- b. Additions – Proposals involving the modification and/or enlargement of marinas must comply with the following measures:

Additions to Marinas and Moorage Facilities Associated with Commercial Uses	<u>Requirements</u>
Addition or enlargement	Must demonstrate that there is a need for the enlargement of an existing pier or dock based upon safety concerns or inadequate depth of water.
Dimensional standards	Enlarged portions must comply with the new pier dimensional standards for pier or dock length and width, height, water depth, location, decking and pilings and for materials.
Decking for piers, docks walkways, ells and fingers	Must convert an area of existing nearshore decking to grated decking equivalent in size to the additional surface coverage.

Mitigation	<p>As determined through Mitigation Sequencing in KZC 83.360</p> <p>Existing skirting shall be removed and may not be replaced</p> <p>Existing in-water and overwater structures located within 50 feet of the OHWM, except for existing or authorized shoreline stabilization measures or pier or docks, shall be removed at a 1:1 ratio to the area of the addition</p>
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- c. Repair– Repair proposals which replace only decking or decking substructure and less than 50 percent of the existing pier-support piles must comply with the following:

Repair to Marinas and Moorage Facilities Associated with Commercial Uses	<u>Requirements</u>
Replacement piles	<p>Must use materials as described under KZC 83.290.5</p> <p>Must minimize the size of piles and maximize the spacing between pilings to the extent allowed by site-specific engineering or design considerations</p>
Replacement of 10 percent or more of the decking or decking substructure	<p>Must replace any solid decking surface located within the nearshore 30 feet of the pier or dock with a grated surface material</p>
Repair of the roof structure of existing boathouses or other similar covered moorage	<p>Must use translucent materials</p>

Other repairs to existing legally established marinas where the nature of the repair is not described in the above subsections shall be considered minor repairs and are permitted, consistent with all other applicable codes and regulations. If cumulative repairs of an existing marina would make a proposed repair exceeds the threshold established in KZC 83.290.5.b, above, the repair proposal shall be reviewed under KZC 83.290 for a new marina.

7. **Submittal Requirements** - In addition to submitting an application, the applicant shall submit the following as part of a request to construct a new, enlarged, or replacement marina or its associated facilities:
- a. An assessment of the anticipated need for the requested number of moorages and ability of the site to accommodate the proposal, considering such factors as environmental conditions, shoreline configuration, access, and neighboring uses.

- b. An assessment of the impacts and measures taken to avoid, minimize, and mitigate impacts. See KZC 83.360 for mitigation sequencing.

83.300 Shoreline Stabilization

1. General -

- a. The standards in this section apply to all developments and uses in shoreline jurisdiction.
- b. New development or redevelopment shall be located and designed to avoid the need for new or future soft or hard structural shoreline stabilization to the extent feasible.
- c. If structural stabilization is necessary to protect the primary structure, then the feasibility of soft structural measures shall be evaluated prior to consideration of hard structural measures. Soft structural stabilization measures must be used unless the City determines that it is not feasible based on information required in this section and provided by the applicant.
- d. Soft shoreline stabilization may include the use of gravels, cobbles, boulders, and logs, as well as vegetation.
- e. Plate XX provides guidance on different shoreline stabilization measures that may be considered, based upon the unique characteristics of the subject property and shoreline.
- f. During construction or repair work on a shoreline stabilization measure, areas of temporary disturbance within the shoreline setback shall be restored as quickly as feasible to their pre-disturbance condition or better to avoid impacts to the ecological function of the shoreline. Also see KZC 83.430 for in-water construction activity.
- g. The following is a summary of the key requirements found in KZC 83.300.2 through KZC 83.300.5:

Shoreline Stabilization Measures	Requirements
Structural and Nonstructural Methods	Nonstructural methods preferred, but if a structural stabilization measure is demonstrated to be needed to protect primary structure, then soft structural stabilization must be considered prior to hard structural stabilization.
New or Enlargement of Hard Shoreline Structural Measures (enlargement includes additions and increases in size, such as height, width, length, or depth, to existing shoreline stabilization measures)	Allowed when existing primary structure is 10 feet or less from OHWM When existing primary structure is greater than 10 feet from OHWM, requires geotechnical report to show need, an evaluation of the feasibility of soft rather than hard structural shoreline stabilization measures and design recommendations for minimizing structural shoreline measures. Requires mitigation plantings
Major Repair or Replacement of Hard Shoreline Structural Measures	A major repair is a collapsed or eroded structure or a demonstrated loss of structural integrity, or repair of toe rock or footings; and is more than 50% in continuous linear length; or A major repair is repair to more than 75

	<p>percent of the linear length of structure which involves replacement of top or middle course rocks or other similar repair</p> <p>Allowed when existing primary structure is 10 feet or less from OHWM</p> <p>For existing primary structure is more than 10 feet from the OHWM, requires a <u>written narrative that provides a demonstration of need</u>.</p>	<p>Deleted: needs assessment</p>
<p>Minor Repair of Hard Shoreline Stabilization Measure</p>	<p>Does not meet threshold of new, enlarged, major repair or replacement measurement.</p> <p>No geotechnical report or needs assessment required.</p>	
<p>New, Enlarged, Repair or Replacement of Soft Shoreline Stabilization Measure</p>	<p>Allowed when existing primary structure is 10 feet or less from OHWM or for repair or replacement.</p> <p>For primary structure greater than 10 feet from the OHWM, new or enlarged requires a <u>written narrative that provides a demonstration of need</u>.</p>	<p>Deleted: needs assessment</p> <p>Deleted: demonstration of need</p>

2. New or Enlarged Structural Shoreline Stabilization –

- a. For the purposes of this section, enlargement of an existing structural stabilization shall include additions to or increases in size (such as height, width, length, or depth).
- b. When allowed:-

The City may only approve a new or enlarged hard or soft structural stabilization measure in the following circumstances:

- 1) To protect an existing primary structure, including a detached dwelling unit, in either of the following circumstances:
 - a) The existing primary structure is located 10 feet or less from the OHWM. For the purposes of the provision, the distance shall be measured to the most waterward location of the primary structure, or
 - b) The existing primary structure is located more than 10 feet from the OHWM.

In order to be approved, the applicant must demonstrate the following:

- (1) For new or enlarged hard structural stabilization, conclusive evidence, documented by a geotechnical analysis, that the primary structure is in danger from shoreline erosion caused by waves. The analysis must show that there is a significant possibility that an existing structure will be damaged within three (3) years as a result of shoreline erosion in the absence of hard structural stabilization measures, or where waiting until the need is immediate results in the loss of opportunity to use measures that would avoid impacts on ecological functions. Where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as three (3) years, the report may still be used to justify more immediate authorization to protect against erosion using soft structural stabilization measures.

- (2) For new soft structural stabilization measures, demonstrate need for structural stabilization to protect the new primary structure. Deleted: show
 - (3) For hard and soft stabilization measures, any on-site drainage issues have been directed away from the shoreline edge prior to considering structural stabilization.
 - (4) For hard and soft shoreline stabilization measures, nonstructural measures, such as planting vegetation, or installing on-site drainage improvements are shown not to be feasible or sufficient to protect the primary structure.
- 2) To protect a new primary structure, including a detached dwelling unit, when all of the conditions below apply:
- a) For new non water dependant uses, placing the new primary structure farther upland from the OHWM is not feasible or not sufficient to prevent damage to the primary structure. Deleted: erosion of
Deleted: from wave action
 - b) Upland conditions, such as drainage problems and the loss of vegetation, are not causing the erosion;
 - c) Nonstructural measures, planting vegetation, or installing on-site drainage improvements are shown not to be feasible or sufficient to prevent damage to the primary structure; and Deleted: erosion
Deleted: from wave action
 - d) The need to protect the new primary structures from potential damage is due to erosion from wave action. For hard structural stabilization measures, a geotechnical report must be submitted demonstrating need. For soft structural stabilization measures, an assessment by a qualified professional must be submitted demonstrating need.
- 3) To protect projects for the restoration of ecological functions or for hazardous substance remediation projects pursuant to Chapter 70.105D RCW when nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

3. Submittal Requirements for New or Enlarged Structural Stabilization Measures -

In addition to the requirements described in KZC 83.300.2 above, the following shall be submitted to the City for an existing primary structure more than 10 feet from the OHWM or for a new primary structure:

- 1) For a hard structural shoreline stabilization measure, a geotechnical report prepared by a qualified professional with an engineering degree. The report shall include the following:
 - a) An assessment of the necessity for hard structural stabilization by estimating time frames and rates of erosion and documenting the urgency associated with the specific situation.
 - b) An assessment of the cause of erosion, looking at processes occurring both waterward and landward of the OHWM.
- 2) An assessment prepared by a qualified professional (e.g., shoreline designer or other consultant familiar with lakeshore processes and shore stabilization), containing the following:
 - a) For a hard structural shoreline stabilization measure, an evaluation of the feasibility of using soft shoreline stabilization measures in lieu of hard structural shoreline stabilization measures. The evaluation shall address the feasibility of implementing options presented in Plate XX based on an assessment of the subject property's characteristics.
 - b) For a soft structural stabilization measure, an assessment of:

- i) The erosion potential resulting from the action of waves or other natural processes operating at or waterward of the OHWM in the absence of the soft structural stabilization.
- ii) The feasibility of using nonstructural measures in lieu of soft structural shoreline stabilization measures.
- c) For both hard and soft structural shoreline stabilization measures, design recommendations for minimum the sizing of shoreline stabilization materials, including gravel and cobble beach substrates necessary to dissipate wave energy, eliminate scour, and provide long-term shoreline stability.
- d) See additional submittal requirements below in subsections 8, 9 and 10 for general submittal requirements, maintenance agreement and general design standards.

4. Replacement or Major Repair of Hard Structural Shoreline Stabilization -

- a. For the purposes of this section, major repair or replacement of a hard shoreline stabilization measure shall include the following activities:
 - 1) A repair needed to a portion of an existing stabilization structure that has collapsed, eroded away or otherwise demonstrated a loss of structural integrity, or in which the repair work involves modification of the toe rock or footings, and the repair is 50 percent or greater than the linear length of the shoreline stabilization measure; or
 - 2) A repair to more than 75 percent of the linear length of the existing hard structural shoreline stabilization measure in which the repair work involves replacement of top or middle course rocks or other similar repair activities.
- b. When allowed -
The City may only approve a major repair or replacement of an existing hard structural stabilization measure with a hard structural shoreline stabilization measure to protect existing primary structures or principle uses, including detached dwelling units, in either of the following circumstances:
 - 1) The primary structure is located 10 feet or less from the OHWM. For the purposes of the provision, the distance shall be measured to the most waterward location of the primary structure; or
 - 2) For a primary structure located more than 10 feet from the OHWM or a use, conclusive evidence is provided to the City that the primary structure or use is in danger from shoreline erosion caused by waves as required in KZC 83.300.4 below.

5. Submittal Requirements for Major Repairs or Replacements of Hard Stabilization Measures -

The following shall be submitted to the City when the primary structure is located more than 10 feet landward of the OHWM or for a use with no primary structure:

- a. Written narrative that provides a demonstration of need shall be submitted. A qualified professional (e.g., shoreline designer or other consultant familiar with lakeshore processes and shore stabilization), but not necessarily a licensed geotechnical engineer shall prepare a written narrative. The written narrative shall consist of the following:
 - 1) An assessment of the necessity for hard structural stabilization, considering site-specific conditions such as water depth, orientation of the shoreline, wave fetch, and location of the nearest structure. The evaluation shall address the feasibility of implementing options presented in Plate XX, given an assessment of the subject property's characteristics.
 - 2) An assessment of erosion potential resulting from the action of waves or other natural processes operating at or waterward of the OHWM in the absence of the hard structural shoreline stabilization.

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- 3) An assessment of the feasibility of using soft structural stabilization measures in lieu of hard structural shoreline stabilization measures. Soft stabilization may include the use of gravels, cobbles, boulders, and logs, as well as vegetation.
 - b. Design recommendations for minimizing impacts and ensuring that the replacement or repaired stabilization measure is designed, located, sized, and constructed to assure no net loss of ecological functions.
 - c. See additional submittal requirements below in subsections 8, 9 and 10 for general submittal requirements, maintenance agreement and general design standards.
6. Minor Repairs of Hard Shoreline Stabilization –
- Minor repairs of hard shoreline stabilization include those maintenance and repair activities not otherwise addressed in the subsection above. The City shall allow minor repair activities to existing hard structural shoreline stabilization measures.
7. Repair or Replacement of Soft Shoreline Stabilization and Submittal Requirements –
1. The City shall allow repair or replacement of soft shoreline stabilization.
 2. The applicant shall submit to the City design recommendations for minimizing impacts and ensuring that the replacement or repaired stabilization measure is designed, located, sized, and constructed to assure no net loss of ecological functions.
 3. See additional submittal requirements below in subsections 8, 9 and 10 for general submittal requirements, maintenance agreement and general design standards.
8. General Submittal Requirements for New, Enlarged, Replacement and Major Repair Measures –
- Detailed construction plans shall be submitted to the City, including the following:
- a. Plan and cross-section views of the existing and proposed shoreline configuration, showing accurate existing and proposed topography and OHWM.
 - b. Detailed construction sequence and specifications for all materials, including gravels, cobbles, boulders, logs, and vegetation. The sizing and placement of all materials shall be selected to accomplish the following objectives:
 - 1) Protect the property and structures from erosion and other damage over the long term, and accommodate the normal amount of alteration from wind- and boat-driven waves;
 - 2) Allow safe passage and migration of fish and wildlife; and
 - 3) Minimize or eliminate juvenile salmon predator habitat.
 - c. For hard structural stabilization measures when shoreline vegetation is required as part of mitigation, a detailed 5-year vegetation maintenance and monitoring program to include the following:
 - 1) Goals and objectives of the shoreline stabilization plan;
 - 2) Success criteria by which the implemented plan will be assessed;
 - 3) A 5-year maintenance and monitoring plan, consisting of one (1) site visit per year by a qualified professional, with annual progress reports submitted to the Planning Official and all other agencies with jurisdiction;
 - 4) A contingency plan in case of failure; and
 - 5) Proof of a written contract with a qualified professional who will perform the monitoring.
 - d. Fee for a consultant selected by the City to review the shoreline stabilization plan, the monitoring and maintenance program, the narrative justification of demonstrated need, and

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drawings. In addition, the Planning Official may require a fee for a consultant to review the geotechnical report and recommendations. In the case of use of a consultant, the applicant shall sign the City's standard 3-party contract.

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9. Maintenance Agreement for Hard and Soft Structural Stabilization -

The applicant shall complete and submit a 5-year period maintenance agreement, using the City's standard form, for recording to ensure maintenance of any structural shoreline stabilization measure.

10. General Design Standards - The following design standards shall be incorporated into the stabilization design:

- a. Soft structural shoreline stabilization measures shall be used to the maximum extent feasible, limiting hard structural shoreline stabilization measures to the portion or portions of the site where necessary to connect to existing hard shoreline stabilization measures on adjacent properties. The length of hard structural shoreline stabilization connections to adjacent properties shall be minimized to the maximum extent feasible, and extend into the subject property from adjacent properties no more than needed.
- b. For enlarged, major repair or replacement of hard structural shoreline stabilization measures, excavation and fill activities associated with the structural stabilization shall be landward of the existing OHWM, except when not feasible due to existing site constraints or to mitigate impacts of hard structural stabilization by increasing shallow water habitat with gravel, rocks and logs.
- c. For short-term construction activities, hard and soft structural stabilization measures must minimize and mitigate any adverse impacts to ecological functions by compliance with appropriate timing restrictions, use of best management practices to prevent water quality impacts related to upland or in-water work, and stabilization of exposed soils following construction.
- d. For long-term impacts, new, enlarged or major repair or replacement of hard structural shoreline stabilization shall incorporate the following measures into the design wherever feasible.
 - 1) Limiting the size of hard structural shoreline stabilization measures to the minimum necessary, including height, depth, and mass.
 - 2) Shifting hard stabilization measures landward and/or sloping the bulkhead landward to provide some dissipation of wave energy and increase the quality or quantity of nearshore shallow-water habitat.
- e. For new and enlarged hard shoreline stabilization, the following additional measures shall be incorporated into the design:
 - 1) To increase shallow-water habitat, install gravel/cobble beach fill waterward of the OHWM, grading slope to a maximum of 1 Vertical (V): 4 Horizontal (H). The material shall be sized and placed to remain stable and accommodate alteration from wind- and boat-driven waves.
 - 2) Plant native riparian vegetation as follows:
 - a) At least 75 percent of the nearshore riparian area located along the edge of the OHWM shall be planted.
 - b) The vegetated portion of the nearshore riparian area shall average 10 feet in depth from the OHWM, but may be a minimum of 5 feet wide to allow for variation in landscape bed shape and plant placement provided that the total square footage of the area planted equals 10 feet along the water's edge.

- c) Restoration of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least 3 trees per 100 linear feet of shoreline must be included in the plan.
- d) Plant materials must be native and selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.
- e) An alternative planting plan or mitigation measure in lieu of meeting this section shall be allowed if approved by other state and federal agencies. In addition, the City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this section, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation.
- f) Standards for vegetation placement are provided in KZC 83.400.
- f. Hard and soft shoreline stabilization measures shall be designed to not significantly interfere with normal surface and/or subsurface drainage into Lake Washington, constitute a hazard to navigation or extend waterward more than the minimum amount necessary to achieve effective stabilization.
- g. Hard and soft stabilization measures are allowed to have gravel, logs and rocks waterward of the OHWM, as approved by the City and federal and state agencies, to provide enhancement of shoreline ecological functions through creation of nearshore shallow-water habitat.
- h. Stairs or other water access measures may be incorporated into the shoreline stabilization, but shall not extend waterward of the shoreline stabilization measure.
- i. The shoreline stabilization measures shall be designed to ensure that the measures do not restrict public access or make access unsafe to the shoreline, except where such access is modified under the provisions of KZC 83.420 for public access. Access measures shall not extend farther waterward than the face of the shoreline stabilization structure.
- j. See subsections 11 and 12 below concerning additional design standards for hard structural stabilization and subsection 13 for soft structural stabilization.

11. Specific Design Standards for New or Enlarged Hard Structural Stabilization –

In addition to the general design standards in subsection 10 above-, the following design standards shall be incorporated:

- a. Where hard stabilization measures are not located on adjacent properties, the construction of a hard stabilization measure on the site shall tie in with the existing contours of the adjoining properties, as feasible, such that the proposed stabilization will not cause erosion of the adjoining properties.
- b. Where hard stabilization measures are located on adjacent properties, the proposed hard stabilization measure may tie in flush with existing hard stabilization measures on adjoining properties, but by no more than as reasonably required.. The new hard stabilization measure shall not extend waterward of OHWM, except as necessary to make the connection to the adjoining hard stabilization measures. No net intrusion into the lake and no net creation of upland shall occur with the connection to adjacent stabilization measures.
- c. Fill behind hard shoreline stabilization measures shall be limited to an average of one (1) cubic yard per running foot of bulkhead. Any filling in excess of this amount shall be considered a regulated activity subject to the regulations in this Chapter pertaining to fill activities and the requirement for obtaining a Shoreline Substantial Development permit.

12. Specific Design Standards for Replacement of Hard Structural Stabilization –

Replacement hard structural stabilization measures shall not encroach waterward of the OHWM or waterward of the existing shoreline stabilization measure unless the primary structure was

constructed prior to January 1, 1992 (RCW 90.58.100.6 and WAC 173.26.241 and WAC 173.26.231.3.j), and there is overriding safety or environmental concerns if the stabilization measure is moved landward of the OHWM. In such cases, the replacement structure shall abut the existing shoreline stabilization structure. All other replacement structures shall be located at or landward of the existing shoreline stabilization structure.

13. Specific Design Standards for Soft Structural Stabilization –

In addition to the general design standards in subsection 10, the following design standards shall be incorporated:

- a. Provide sufficient protection of adjacent properties by tying in with the existing contours of the adjoining properties to prevent erosion at the property line. Proposals that include necessary use of hard structural stabilization measures only at the property lines to tie in with adjacent properties shall be permitted as soft structural shoreline stabilization measures. The length of hard structural stabilization connections to adjacent properties shall be the minimum needed and extend into the subject property from adjacent properties as reasonably required.
- b. Size and arrange any gravels, cobbles, logs, and boulders so that the improvement remains stable in the long-term and dissipate wave energy, without presenting extended linear faces to oncoming waves.

14. Expansion of SMA Jurisdiction from Shift in OHWM -

If a shoreline stabilization measure from any action required by this Chapter or intended to improve ecological functions results in shifting the OHWM landward of the pre-modification location that expands the shoreline jurisdiction onto any property other than the subject property, then as part of the shoreline permit process found in KZC 141:

- a.) The City shall notify the affected property owner in writing, and
- b.) The City may propose to grant relief for the affected property owners from applicable shoreline regulations resulting in expansion of the shoreline jurisdiction. The proposal to grant relief must be submitted to the Department of Ecology with the shoreline permit under the procedures established in KZC 141.70.5. If approved, notice of the relief, in a form approved by the City Attorney, shall be recorded on the title of the affected property in the King County Office.

83.310 Breakwaters, Jetties, Groins

1. Breakwaters, jetties, and groins are not permitted in the Natural, Urban Conservancy, or Residential – L shoreline environments. Breakwaters, jetties, and groins may only be permitted in other shoreline environments where necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purpose.
2. The City will permit the construction and use of a breakwater, jetty or groin only if:
 - a. The structure is essential to the safe operation of a moorage facility or the maintenance of other public water-dependent uses, such as swimming beaches;
 - b. The City determines that the location, size, design, and accessory components of the moorage facility or other public water-dependent uses to be protected by the breakwater are distinctly desirable and within the public interest; and
 - c. The benefits to the public provided by the moorage facility or other public water-dependent uses protected by the breakwater outweigh any undesirable effects or adverse impacts on the environment or nearby waterfront properties.
3. Design Standards
 - a. All breakwaters, jetties or groins must be designed and constructed under the supervision of a civil engineer or similarly qualified professional. As part of the application, the engineer or other professional designing the breakwater, jetty or groin must certify that it is the smallest

feasible structure to meet the requirements of this Chapter and accomplish its purpose and that the design will result in the minimum feasible adverse impacts upon the environment, nearby waterfront properties and navigation.

- b. Breakwaters may only use floating or open-pile designs.

83.320 Dredging and Dredge Material Disposal

1. New development shall be sited and designed to avoid or, if that is not feasible, to minimize the need for new and maintenance dredging.
2. Dredging waterward of the OHWM may be allowed for only the following purposes:
 - a. To establish, expand, relocate or reconfigure navigation channels and basins where necessary for assuring safe and efficient accommodation of existing navigational uses and then only when significant ecological impacts are minimized and when mitigation is provided. Maintenance dredging of established navigation channels and basins must be restricted to maintaining previously dredged and/or existing authorized location, depth, and width.
 - b. To maintain the use of existing private or public boat moorage, water-dependent use, or other public access use. Maintenance dredging is restricted to maintaining previously dredged and/or existing authorized location, depth, and width.
 - c. To restore ecological functions, provided the applicant can demonstrate a clear connection between the proposed dredging and the expected environmental benefits to water quality and/or fish and wildlife habitat.
 - d. To obtain fill or construction material when necessary for the restoration of ecological functions. Dredging waterward of the OHWM for the primary purpose of obtaining fill or construction materials is not permitted under other circumstances. When allowed, the site where the fill is to be placed must be located waterward of the OHWM. The project must be associated with a significant habitat enhancement project.
3. Depositing dredge materials waterward of the OHWM shall only be allowed in approved sites, only when the material meets or exceeds state pollutant standards, and only for the purposes of fish or wildlife habitat improvement or permitted beach enhancement.
4. Dredging Design Standards –
 - a. All permitted dredging must be the minimum area and volume necessary to accommodate the existing or proposed use, and must be implemented using practices that do not exceed state water quality standards.
 - b. Dredging projects shall be designed and carried out to prevent direct and indirect impacts on adjacent properties.
5. Submittal Requirements -

The following information shall be required for all dredging applications:

- a. A description of the purpose of the proposed dredging.
- b. A detailed description of the existing physical character, shoreline geomorphology and biological resources provided by the area proposed to be dredged, including:
 - 1) A site plan map outlining the perimeter of the proposed dredge area. The map must also include the existing bathymetry depths based on the OHWM and have data points at a minimum of 2-foot depth increments.
 - 2) A habitat survey identifying aquatic vegetation, potential native fish spawning areas, or other physical or biological habitat parameters.
 - 2) Information on the stability of lakebed adjacent to proposed dredging area.

- 3) Information on the composition of the material to be removed.
- c. A description of:
 - 1) Dredging procedure, including length of time it will take to complete dredging, method of dredging, and amount of material removed.
 - 2) Where the materials will be placed to allow for sediment to settle, by what means the materials will be transported away from the dredge site, and specific approved land or open-water disposal site.
 - 3) Plan for anticipated future maintenance dredging and disposal, including frequency and quantity, for at least a 20-year period.
- d. Copies of state and federal approvals.

83.330 Land Surface Modification

1. General – The following standards must be met for any approved land surface modification:
 - a. Land surface modification within required shoreline setback shall only be permitted upon approval of a land surface modification permit, under the provisions established in KMC Title 29.
 - b. The land surface modification shall be consistent with the provisions of this Chapter, including, but not limited to, the regulations regarding streams, wetlands and their buffers, geologically hazardous areas, shoreline vegetation, and trees.
 - c. The land surface modification is consistent with the provisions of the most current edition of the Public Works Department's Pre-Approved Plans and Policies.
 - d. All excess material resulting from land surface modification shall be disposed of in a manner that prevents the material entering into a waterbody through erosion or runoff. Where large quantities of plants are removed by vegetation control activities authorized under this section, plant debris shall be collected and disposed of in an appropriate location located outside of the shoreline setback.
 - e. Areas disturbed by permitted land surface modification in the shoreline setback shall be stabilized with approved vegetation.
 - f. All materials used as fill shall be non-dissolving and non-decomposing. Fill material shall not contain organic or inorganic material that would be detrimental to water quality or existing habitat, or create any other significant adverse impacts to the environment.
 - g. The land surface modification must be the minimum necessary to accomplish the underlying reason for the land surface modification.
 - h. Except as is necessary during construction, dirt, rocks and similar materials shall not be stockpiled on the subject property. If stockpiling is necessary during construction, it must be located as far as feasible from the lake and strictly contained to prevent erosion and runoff.
2. Permitted Activities -
 - a. Land surface modification is prohibited within the shoreline setback, except for the following:
 - 1) For the purpose of shoreline habitat and natural systems enhancement projects, setting back shoreline stabilization measures or portions of shoreline stabilization measures from the OHWM, or soft structural shoreline stabilization measures under a plan approved by the City.
 - 2) As authorized by a valid shoreline permit or approval issued by the City.
 - 3) Associated with the installation of improvements located within the shoreline setback or waterward of the OHWM, as permitted under KZC 83.190.2.

- 4) Removal of prohibited vegetation.
 - 5) As performed in the normal course of maintaining existing vegetation on a lot associated with existing buildings, provided such work:
 - a) Does not modify any drainage course.
 - b) Does not involve the importation of fill material, except as needed for mulch or soil amendment.
 - c) Does not involve removal of native vegetation or vegetation installed as part of an approved restoration or enhancement plan, unless approved by the Planning Official.
 - d) Does not result in erosion of the shoreline or undermine stability of neighboring properties.
 - e) Does not result in the compaction of existing soils in a manner that significantly decreases the ability of the soil to absorb rainfall.
 - f) Is the minimum extent necessary to reasonably accomplish the maintenance activity.
 - 6) Correction of storm drainage improvements when supervised by the Department of Public Works.
 - 7) As necessary to maintain or upgrade the structural safety of a legally established structure.
 - 8) For exploratory excavations under the direction of a professional engineer licensed in the state of Washington, as long as the extent of the land surface modification does not exceed the minimum necessary to obtain the desired information.
- b. Land surface modification outside of the shoreline setback is regulated as land surface modifications throughout the City. See KMC Title 29 for those regulations.

83.340 Fill

1. Fill shall be permitted only where it is demonstrated that the proposed action will not:
 - a. Result in significant damage to water quality, fish, aquatic habitat, and/or wildlife habitat; or
 - b. Adversely alter natural drainage and circulation patterns, currents, or stream flows, or significantly reduce floodwater-holding capabilities.
2. Fills landward and waterward of the OHWM shall be designed, constructed, and maintained to prevent, minimize, and control all material movement, erosion, and sedimentation from the affected area.
3. Fills waterward of the OHWM shall be permitted only:
 - a. In conjunction with an approved water-dependent use or public access use, including maintenance of beaches or
 - b. As part of an approved mitigation or restoration project.
4. Any placement of materials landward of the OHWM shall comply with the provisions in KZC 83.330 for land surface modification.
5. No refuse disposal sites, solid waste disposal sites, or sanitary fills shall be permitted.

83.350 Shoreline Habitat and Natural Systems Enhancement Projects

1. Purpose - Shoreline habitat and natural systems enhancement projects include those activities proposed and conducted specifically for the purpose of establishing, restoring, or enhancing habitat for priority species in shorelines.
2. Covered Activities – The following actions are allowed under this section, provided they first meet the purpose stated in subsection 1 above:

- a. Establishment or enhancement of native vegetation.
- b. Removal of non-native or invasive plants upland of the OHWM, including only those identified as noxious weeds on King County's published Noxious Weed List, unless otherwise authorized by the City.
- c. Conversion of hard structural shoreline stabilization to soft shoreline stabilization, including associated clearing, dredging and filling necessary to implement the conversion, provided that the primary purpose of such actions is clearly restoration of the natural character and ecological functions of the shoreline.
- d. Implementation of any project or activity identified in the City's Restoration Plan.
- e. Implementation of any project or activity identified in the *Final WRIA 8 Chinook Salmon Conservation Plan and related documents*.

General Regulations

83.360 No Net Loss Standard and Mitigation Sequencing

1. General –

- a. If specific standards, such as setbacks, pier dimensions and tree planting requirements, are provided in this Chapter, then the City shall not require additional mitigation sequencing analysis under these provisions.
- b. In the following circumstances, the applicant shall provide an analysis of measures taken to mitigate environmental impacts:
 - a) Where specific regulations for a proposed use or activity are not provided in this Chapter;
 - b) Where either a Conditional Use or Variance application are proposed;
 - c) Where the standards contained in this Chapter require an analysis of the feasibility of or need for an action or require analysis to determine whether the design has been minimized in size; and
 - d) Where the standards provide for alternative compliance or mitigation measures.
- c. Under WAC Chapter 173-26, uses and shoreline modifications along Kirkland's shoreline shall be designed, located, sized, constructed and/or maintained to achieve no net loss of shoreline ecological functions.
- d. Maintenance activities shall be conducted in a manner that minimizes impacts to fish, wildlife, and their associated habitat and utilizes best management practices.
- e. Where evaluating the feasibility of a proposed action, the City ~~shall consider whether the cost of avoiding disturbance is substantially disproportionate as compared to the environmental impact of the proposed disturbance, including any continued impacts on functions and values over time.~~
- f. Where mitigation is required, the City ~~shall consider alternative mitigation measures that are proposed by the applicant that~~ may be less costly than those prescribed in this Chapter, provided that the alternatives are as effective in meeting the requirements of no net loss.

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2. Mitigation Analysis - In order to assure that development activities contribute to meeting the no net loss provisions by avoiding, minimizing, and mitigating for adverse impacts to ecological functions or ecosystem-wide processes, an applicant required to complete a mitigation analysis pursuant to subsection 1 above, shall utilize the following mitigation sequencing guidelines, which appear in order of preference, during the design, construction and operation of the proposal:
- a. Avoiding the impact altogether by not taking a certain action or parts of an action;
 - b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology or by taking affirmative steps to avoid or reduce impacts;
 - c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations;
 - e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
 - f. Monitoring the impact and the compensation projects and taking appropriate corrective measures.

Failure to demonstrate that the mitigation sequencing standards have been met may result in permit denial. The City may request necessary studies by qualified professionals to determine compliance with this standard and mitigation sequencing.

83.370 Federal and State Approval

1. All work at or waterward of the OHWM requires permits or approvals from one or more of the following state and federal agencies: U.S. Army Corps of Engineers, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, or Washington Department of Ecology.
2. Documentation verifying necessary state and federal agency approvals must be submitted to the City prior to issuance of a building permit, including shoreline exemption. All activities within shoreline jurisdiction must comply with all other applicable laws and regulations.
3. If structures are proposed to extend waterward of the inner harbor line, the applicant must obtain an aquatic use authorization from the Washington State Department of Natural Resources and submit proof of authorization with submittal of a Building Permit.

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83.380 Shoreline Setback Reduction

1. Improvements permitted within the Shoreline Setback - See standards contained in KZC Section 83.190.2.
2. Shoreline Setback Reductions –
 - a. In the Residential – L shoreline environment, the shoreline setback may be reduced by 2 feet if subject to the Historic Preservation provisions of KMC 22.28.048, but in no case closer than 25 feet with the exception in the Residential L - shoreline environment south of the Lake Ave West Street End where the minimum shoreline setback is 15 feet.
 - b. The required shoreline setback may be reduced to a minimum of 25 feet when setback reduction impacts are mitigated using a combination of the mitigation options provided in the table below to achieve an equal or greater protection of lake ecological functions. In the portion of the Residential-L environment located south of the Lake Ave W Street End Park, the required shoreline setback may be reduced to a minimum of 15 feet. The following standards shall apply to any reduced setback:
 - 1) The minimum setback that may be approved through this reduction provision is 25 feet in width, except that properties in the Residential L – shoreline environment south of the Lake Street Ave Street End may reduce to a minimum setback of 15 feet. Any further setback reduction below 25 feet or 15 feet, respectively, in width shall require approval of a shoreline variance application.
 - 2) The City shall accept previous actions that meet the provisions established in the setback reduction method chart in subsection d. below as satisfying the requirements of this section, provided that all other provisions are completed, including but not limited to the agreement noted in Section 83.380.2.b.4 are completed. The reduction allowance for previously completed reduction actions may only be applied once on the subject property.
 - 3) Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built plan of any completed improvements authorized or required under this subsection.
 - 4) All property owners who obtain approval for a reduction in the setback must record the final approved setback and corresponding conditions, including maintenance of the conditions throughout the life of the development, unless otherwise approved by the City, in a form acceptable to the City Attorney, and recorded with the King County Recorder's Office. The applicant shall provide land survey information for this purpose in a format approved by the Planning Official.
 - 5) The shoreline setback reduction mechanisms shall not apply within the Natural Environment.

- c. The reduction allowance shall be applied to the required shoreline setback. For instance, if a reduction is proposed in the Residential – L environment, where the shoreline setback requirement is 30% of the average parcel depth, the shoreline setback could be reduced to 20% of the average parcel depth, but in no case less than 25 feet, if Reduction Mechanism Item 1 in the table below is used.
- d. The chart below describes the setback reduction options:

Shoreline Setback Reduction Options		Reduction Allowance	
		Standard Reduction (min. 25' setback)	Residential-L, south of Lake Ave W Street End Park (min. 15' setback)
Water Related Conditions or Actions			
1	Presence of non-structural or soft structural shoreline stabilization measures located at, below, or within 5 feet landward of the lake's OHWM along at least 75 percent of the linear lake frontage of the subject property. This can include the removal of an existing hard structural shoreline stabilization measure and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography, and beach/substrate composition. This option cannot be used in conjunction with Method #2 below	Reduce required setback by 15 percentage points, or in cases where the required setback is 60' reduce setback by 30 feet	Reduce required setback by 15 feet
2	Presence of non-structural or soft structural shoreline stabilization measures located at, below, or within 5 feet landward of the lake's OHWM along at least 15 linear feet of the lake frontage of the subject property. This can include the removal of an existing hard structural shoreline stabilization measure and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or enhancement of nearshore shallow-water habitat, beach/substrate composition. This option cannot be used in conjunction with Method #1 above;	Reduce required setback by 5 percentage points, or in cases where the required setback is 60' reduce setback by 10 feet	Reduce required setback by 5 feet
3	Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish for a minimum of 25 feet in length. Opened watercourses must be provided with a native planted buffer at least 5 feet wide on both side of the stream, and must not encumber adjacent properties with a 5 foot wide buffer without express written permission of the adjacent property owner. A qualified professional must design opened watercourses. The opened watercourse shall be exempt from the buffer provisions of KZC 83.490. The opened watercourse is exempt from the buffer requirements and standards of KZC 83.510.	Reduce required setback by 5 percentage points, or in cases where the required setback is 60' reduce setback by 4 feet	Reduce required setback by 5 feet

Shoreline Setback Reduction Options		Reduction Allowance	
		Standard Reduction (min. 25' setback)	Residential-L, south of Lake Ave W Street End Park (min. 15' setback)
4	Hard structural shoreline stabilization measure is setback from the OHWM between 2 ft. to 4 ft based on feasibility and existing conditions and/are sloped at a maximum 3 Vertical (V): 1 Horizontal (H) angle to provide dissipation of wave energy and increase the quality or quantity of nearshore shallow-water habitat.	Reduce required setback by 5 percentage points, or in cases where the required setback is 60' reduce setback by 4 feet	Reduce required setback by 5 feet
5	Soft structural shoreline stabilization measures are installed waterward of the OHWM. They may include the use of gravels, cobbles, boulders, and logs, as well as vegetation. The material shall be of a size and placed to remain stable and accommodate alteration from wind- and boat-driven waves and shall be graded to a maximum slope of 1 Vertical (V): 4 Horizontal (H).	Reduce required setback by 2 percentage points, or in cases where the required setback is 60' reduce setback by 4 feet	Reduce required setback by 2 feet
Upland Related Conditions or Actions			
6	Installation of biofiltration/infiltration mechanisms in lieu of piped discharge to the lake, such as mechanisms that infiltrate or disperse surface water on the surface of the subject property, These mechanisms shall be sized to store a minimum of 70% of the annual volume of runoff water from the subject property, for sites with poor soils, or 99% of the annual volume of runoff water from the subject property, for sites with well-draining soils. This mechanism shall apply to sites where the total new or replaced impervious surface is less than or equal to 5,000 square feet. The mechanisms shall be designed to meet the requirements in the City's current surface water design manual.	Reduce required setback by 2 percentage points, or in cases where the required setback is 60' reduce setback by 4 feet	Reduce required setback by 2 feet
7	Increasing the width of the required landscape strip within the reduced shoreline setback a minimum of 5 additional feet in width.	Reduce required setback by 2 percentage points, or in cases where the required	Reduce required setback by 2 feet

Shoreline Setback Reduction Options		Reduction Allowance	
		Standard Reduction (min. 25' setback)	Residential-L, south of Lake Ave W Street End Park (min. 15' setback)
		setback is 60' reduce setback by 4 feet	
6	Installation of pervious material for all pollution generating surfaces such as driveways, parking or private roads that allows water to pass through at rates similar to pre-developed conditions. Excluded from this provision are the private easement roads, such as 5 th Ave West or Lake Ave W in the Residential – L shoreline environment.	Reduce required setback by 2 percentage points, or in cases where the required setback is 60' reduce setback by 4 feet	Reduce required setback by 2 feet
7	Limiting the lawn area within the shoreline setback to no more than 50 percent of the reduced setback area.	Reduce required setback by 2 percentage points, or in cases where the required setback is 60' reduce setback by 4 feet	Reduce required setback by 2 feet
8	Preserving or restoring at least 20 percent of the total lot area outside of the reduced setback and any critical areas and their associated buffers as native vegetation.	Reduce required setback by 2 percentage points, or in cases where the required setback is 60' reduce setback by 4 feet	Reduce required setback by 2 feet

83.390 Site and Building Design Standards

1. Water-enjoyment and non-water oriented commercial and recreational uses shall contain the following design features to provide for the ability to enjoy the physical and aesthetic qualities of the shoreline:
 - a. Buildings are designed with windows that orient toward the shoreline.
 - b. Buildings are designed to incorporate outdoor areas such as decks, patios, or viewing platforms that orient toward the shoreline.
 - c. Buildings are designed with entrances along the waterfront façade and with connections between the building and required public pedestrian walkways.
 - d. Service areas are located away from the shoreline.
 - e. Site planning includes public use areas along waterfront public pedestrian walkways, if required under the provisions established in KZC 83.420, that will encourage pedestrian activity, including but not limited to:
 - 1) Permanent seating areas;
 - 2) Vegetation, including trees to provide shade cover; and
 - 3) Trash receptacles.
2. Exemptions – The following are exempt from the requirements of subsection 1:
 - a) Non-water oriented commercial and recreational uses that are located on the east side of Lake Washington Blvd. NE/Lake Street or on the east side of 98th Avenue NE.
 - b) Non-water oriented commercial and recreational uses where there is an intervening development between the shoreline and the subject property.
3. Buildings shall not incorporate materials that are reflective or mirrored.

83.400 Tree Management and Vegetation in Shoreline Setback

1. Tree Retention - ~~The following provisions shall apply to significant trees located within the shoreline jurisdiction, in addition to the provisions contained in Chapter 95 KZC. Provisions contained in Chapter 95 KZC that are not addressed in this section continue to apply.~~

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To maintain the ecological functions that trees provide to the shoreline environment, significant trees shall be retained or, if removed, the loss of shoreline ecological functions shall be mitigated for, subject to the following standards:

- a. For tree removal in the shoreline setback when no development activity is proposed or in progress, the following tree replacement standards shall apply:

1) Healthy, diseased or nuisance trees that are removed or fallen trees in the shoreline setback shall be replaced as follows:

Deleted: 1) An owner of a developed a property may remove up to 2 significant trees from their property within a 12 month period subject to the standards contained in Chapter 95 KZC.¶
Replacement Standards in the Shoreline Setback – ¶
a) If a significant tree located within the shoreline setback area is to be removed, is damaged or has fallen, a 3-for-1 replacement is required as mitigation. The required minimum size of the replacement trees shall be 6 feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree.

Removed Tree Type	Replacement Requirement
1 conifer tree less than 24 inches in diameter as measured at breast height	For removal of conifer tree up to 12" in diameter replace with: 1) 1 native conifer tree at least 6 feet in height measured from existing grade and 2) <u>plant at least 40 square feet of native riparian vegetation or plant 1 additional tree. Riparian area shall contain at least 60% shrubs and be a minimum of 3 feet wide in all dimension at the time of planting.</u>

	From removal of conifer tree greater than 12" in diameter but less than 24" in diameter, same replacement requirements as for conifer tree 12" in diameter or less, but riparian vegetation area shall be at least 80 square feet at the time of planting.
1 deciduous tree less than 24 inches in diameter as measured at breast height	For removal of deciduous tree up to 12" in diameter replace with: 1) 1 deciduous tree at least 2" in caliper measured 6" above existing grade or 1 native conifer tree at least 6 feet in height measured from existing grade and 2) plant at least 40 square feet of native riparian vegetation or plant 1 additional tree. Riparian area shall contain at least 60% shrubs and be a minimum of 3 feet wide in all dimension at the time of planting. For removal of deciduous tree greater than 12" in diameter but less than 24" in diameter, same replacement requirements as for deciduous tree 12" in diameter or less, but riparian vegetation area shall be at least 80 square feet at the time of planting.
1 conifer or deciduous tree 24 inches in diameter or greater as measured at breast height	Only tree meeting the criteria found in KZC 95 for a nuisance or hazard tree may be removed. A report, prepared by a qualified professional certified arborist, must be submitted showing how tree meets the criteria. The City arborist shall make the final determination if tree meets the criteria and may be removed. If the City arborist approved removal of the tree, tree replacement shall be: For removal of 1 conifer tree, replace with 2 native conifer trees at least 6 feet in height at the time of planting. For removal of 1 deciduous tree, replace with 2 trees of either type. Native conifer tree shall be at least 6 feet in height and deciduous tree shall be at least 2" in caliper measured 6" above existing grade at the time of planting.

2. An alternative replacement option shall be approved if an applicant can demonstrate that :

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- a) It is not feasible to plant all of the required mitigation trees in the shoreline setback of the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, and minimum spacing requirements for the trees to be planted, or
- b) The required tree replacement will obstruct existing views to the lake, at the time of planting or upon future growth, which cannot otherwise be mitigated through tree placement or maintenance activities. The applicant shall be responsible for providing

sufficient information to the City to determine whether the tree replacement will obstruct existing views to the lake.

The alternate replacement option must be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. This may include, but shall not be limited to, a riparian restoration plan consisting of shrubs, or groundcovers selected from the Kirkland Native Plant List which shall equal at a minimum 80 square feet for each tree to be replanted. The applicant shall submit a planting plan to be reviewed by the Planning Official or Urban Forester, who may approve, approve with conditions, or deny the request.

If the alternative plan is consistent with the standards provided in this subsection, the Planning Official or Urban Forester shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

3. In circumstances where the proposed tree removal includes a tree that was required to be planted as a replacement tree under the provisions of this subsection or as part of the required vegetation in the shoreline setback established in subsection KZC 83.400.4 below, the required tree replacement shall be addressed under the provisions of below, which requires only a 1:1 replacement.
 4. For required replacement trees, a planting plan showing the location, size and species of the new trees is required to be submitted and approved to by the Planning Official. All replacement trees in the shoreline setback must be selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.
- b. For tree removal in the shoreline setback when development activity is proposed or in progress.
- 1) Submittal Requirements in the Shoreline Setback –
 - a) A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of existing structures, driveways, access ways and easements and the proposed improvements.
 - b) An arborist report stating the size (DBH), species, and assessment of health of all significant trees located within the shoreline setback. This requirement may be waived by the Planning Official if it is determined that proposed development activity will not potentially impacts significant trees within the shoreline setback.
 - 2) Tree Retention Standards in the Shoreline Setback - Within the shoreline setback, existing significant trees shall be retained, provided that the trees are determined to be healthy and windfirm by a qualified professional, and provided the trees can be safely retained consistent with the proposed development activity. The Planning Official is authorized to require site plan alterations to retain significant trees in the shoreline setback. Such alterations include minor adjustments to the location of building footprints, adjustments to the location of driveways and access ways, or adjustment to the location of walkways, easements or utilities. The applicant shall be encouraged to retain viable trees in other areas on-site.
 - 2) Replanting Requirements in the Shoreline Setback –
 - a) If the Planning Official approves removal of a significant tree in the shoreline setback area, then the tree replacement requirements of KZC 83.400.1.a above shall be met. See alternative mitigation option in subsection 3) c. below that may be proposed.
 - b) For required replacement trees, a planting plan showing location, size and species of the new trees is required. All replacement trees in the shoreline setback must be

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selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.

- c) An alternative mitigation option may be approved if an applicant can demonstrate that:
- i. It is not feasible to plant all of the required mitigation trees on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, and minimum spacing requirements for the trees to be planted., or
 - ii. The required tree replacement will obstruct existing views to the lake, at the time of planting or upon future growth, which cannot otherwise be mitigated through tree placement or maintenance activities. The applicant shall be responsible for providing sufficient information to the City to determine whether the tree replacement will obstruct existing views to the lake.

The alternate mitigation must be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. This may include, but shall not be limited to, a riparian restoration plan consisting of shrubs, perennials, groundcovers selected from the Kirkland Native Plant List which shall equal at minimum 80 square feet for each tree to be replanted. The applicants shall submit a planting plan to be reviewed by the Planning Official or Urban Forester, who may approve, approve with conditions, or deny the request.

If the alternative plan is consistent with the standards provided in this subsection, the Planning Official or Urban Forester shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

2. Tree Pruning - Non-destructive thinning of lateral branches to enhance views or trimming, shaping, thinning or pruning of a tree necessary to its health and growth is allowed, consistent with the following standards:
 - a. In no circumstance shall removal of more than one-third (1/3) of the original crown be permitted;
 - b. Pruning shall not include topping, stripping of branches or creation of an imbalanced canopy;
 - c. Pruning shall retain branches that overhang the water to the maximum extent feasible
3. Required Vegetation in Shoreline Setback – Riparian vegetation contributes to shoreline ecological functions in a number of different ways, including maintaining temperature, removing excessive nutrients and toxic compounds, attenuating wave energy, removing and stabilizing sediment and providing woody debris and other organic matter. In order to minimizing potential impacts to shoreline ecological functions from development activities, the following shoreline vegetation standards are required:
 - a. For properties that do not comply with the shoreline vegetation standards contained in this subsection, refer to KZC 83.550 to determine when compliance is required.
 - b. Minimum Vegetation Standard Compliance –
 - 1.) Location –
 - a) Water-dependent Uses or Activities - Those portions of water-dependent development that require improvements adjacent to the water's edge, such as fuel stations for retail establishments providing gas sales, haul-out areas for retail establishments providing boat and motor repair and service, boat ramps for boat launches, swimming beaches or other similar activities shall plant native vegetation

on portions of the nearshore riparian area located along the water's edge that are not otherwise being used for the water-dependent activity.

- b) All Other Uses - The applicant shall plant native vegetation, as necessary, in at least 75 percent of the nearshore riparian area located along the water's edge.

For public parks, the required native vegetation area of 75 percent may be modified for the remaining portions of the nearshore that do not contain a swimming beach, boating area or other similar water dependent activities described in KZC 83.400.3 b.1.) a) above, if:

- 1) It can be demonstrated that the vegetation in the nearshore is not feasible given public access, existing conditions or maintaining public views, and
- 2) The vegetation area is provided elsewhere in the park within the shoreline jurisdiction.

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2) Planting Requirements –

- a) For uses other than those list below in subsection 2) b), the vegetated portion of the nearshore riparian area shall average 10 feet in depth from the OHWM, but may be a minimum of 5 feet wide to allow for variation in landscape bed shape and plant placement. Total square feet of landscaped area shall be equal to a continuous 10-foot wide area.
 - b) For Detached, Attached or Stacked Dwelling Units within the Residential – M/H shoreline environment, the vegetated portion of the nearshore riparian area shall average 15 feet in depth from the OHWM. Total square feet of landscaped area shall be equal to a continuous 15-foot wide area.
 - c) The public access pathway required under KZC 83.420 may extend into the required landscape strip as necessary to meet the public access requirements, provided that the overall width of the landscape strip is maintained.
 - d) Installation of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least 3 trees per 100 linear feet of shoreline must be included in the plan, with portions of a tree rounded up to the next required tree. At least 60 % of the landscape bed shall consist of shrubs.
 - e) Plant materials must be native and selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.
- c. Use of Existing Vegetation - The City shall accept existing native trees, shrubs and groundcover as meeting the requirements of this subsection, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation. The City may require the applicant to plant trees, shrubs, and groundcover according to the requirements of this subsection to supplement the existing vegetation in order to provide a buffer at least as effective as the required buffer.
 - d. Landscape Plan Required - The applicant shall submit a landscape plan that depicts the quantity, location, species, and size of plant materials proposed to comply with the requirements of this subsection, and shall address the plant installation and maintenance requirements set forth in KZC 95. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown.
 - e. Vegetation Placement – When required either by this subsection or as a mitigation measure, such as for a new pier or dock or structural shoreline stabilization measure, vegetation selection and placement shall comply with the following standards:

- 1) Vegetation shall be selected and positioned on the property so as not to obscure the public view within designated view corridors from the public right-of-way to the Lake and the shoreline on the opposite side of the Lake at the time of planting or upon future growth.
 - 2) Vegetation may be selected and positioned to maintain private views to the water by clustering vegetation in a selected area, provided that the minimum landscape standard is met, unless alternative compliance is approved.
- f. Alternative Compliance - Vegetation required by this subsection shall be installed unless the applicant demonstrates one of the following:
- 1) The vegetation will not provide shoreline ecological function due to existing conditions, such as the presence of extensive shoreline stabilization measures that extend landward from the OHWM; or
 - 2) It is not feasible to plant all of the required vegetation on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, or minimum spacing requirements for the vegetation to be planted; or
 - 3) The vegetation will substantially interfere with the use and enjoyment of the portion of the property located between the residence and OHWM;
 - 4) The required vegetation placement will obstruct existing views to the lake, at the time of planting or upon future growth, which cannot otherwise be mitigated through placement or maintenance activities. The applicant shall be responsible for providing sufficient information to the City to determine whether:
 - a) The vegetation placement will obstruct existing views to the lake; and
 - b) The alternate measures will be equal or superior to the provisions of this subsection in accomplishing the purpose and intent of maintaining and improving shoreline ecological functions and processes.

Requests to use alternative measures shall be reviewed by the Planning Official who may approve, approve with conditions, or deny the request. Cost of producing and implementing the alternative plan, and the fee to review the plan by City staff or the City's consultant shall be borne by the applicant.

If the alternative plan is consistent with the standards provided in this subsection, the Planning Official shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the alternative mitigation is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and re-submittal.

4. Other Standards

a. For other general requirements, see Chapter 95 KZC, Tree Management and Landscaping Requirements.

b. The applicant is encouraged to make significant trees removed under these provisions available for City restoration projects, as needed.

5. Responsibility for Regular Maintenance -

- a. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of vegetation required under this section. Plants that die must be replaced in kind or with similar plants contained on the Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.
- b. All required vegetation must be maintained throughout the life of the development. Prior to issuance of a certificate of occupancy or final inspection, the proponent shall provide a final

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as-built landscape plan and a recorded agreement to maintain and replace all vegetation that is required by the City.

83.410 View Corridors

1. General - Development within the shoreline areas located west of Lake Washington Boulevard and Lake Street South shall include public view corridors that provide the public with an unobstructed view of the water. The intent of the corridor is to provide an unobstructed view from the adjacent public right-of-way to the Lake and the shoreline on the opposite side of the Lake.
2. Standards -
 - a. For properties lying waterward of Lake Washington Boulevard and Lake Street South, a minimum view corridor of thirty percent of the average parcel width must be maintained. A view of the shoreline edge of the subject property shall be provided if existing topography, vegetation, and other factors allow for this view to be retained.
 - b. The view corridors approved for properties located in the UM Shoreline Environment established under an approved Master Plan or zoning permit approved under the provisions of Chapter 152 KZC shall continue to comply with those requirements. Modifications to the proposed view corridor shall be considered under the standards established in the Master Plan or approved zoning permit.
3. Exceptions - The requirement for a view corridor does not apply to the following:
 - a. The following water-dependent uses:
 - 1) Piers and docks associated with a marina or moorage facility for a commercial use;
 - 2) Piers, docks, moorage buoys, boatlifts and canopies associated with Detached, Attached and Stacked Unit uses; and
 - 3) Tour boat facility, ferry terminal or water taxi, including permanent structures up to 200 square feet in size housing commercial uses ancillary to the facility.
 - 4) Public Access Pier or Boardwalk
 - 5) Boat launch
 - b. Public Parks
 - c. Properties located in the UM Shoreline Environment within the Central Business District zone.
4. View corridor location - The location of the view corridor shall be designed to meet the following location standards and must be approved by the Planning Official.
 - a. If the subject property does not directly abut the shoreline, the view corridor shall be designed to coincide with the view corridor of the properties to the west.
 - b. The view corridor must be adjacent to either the north or south property line of the subject property, whichever will result in the widest view corridor, considering the following, in order of priority:
 - 1) Locations of existing view corridors.
 - 2) Existing development or potential development on adjacent properties, given the topography, access and likely location of future improvements.
 - 3) The availability of actual views of the water and the potential of the lot for providing those views from the street.
 - 4) Location of existing sight-obscuring structures, parking areas or vegetation that is likely to remain in place in the foreseeable future.
 - c. The view corridor must be in one continuous piece.

- d. For land divisions, the view corridor shall be established as part of the land division and shall be located to create the largest view corridor on the subject property.
5. Permitted encroachments -
- a. The following shall be permitted within a view corridor:
 - 1) Areas provided for public access, such as public pedestrian walkways, public use areas, or viewing platforms.
 - 2) Parking lots and subsurface parking structures, provided that the parking does not obstruct the view from the public right-of-way to the waters of the Lake and the shoreline on the opposite side of the Lake.
 - 3) Structures if the slope of the subject property permits full, unobstructed views of the Lake and the shoreline on the opposite side of the Lake over the structures from the public right-of-way.
 - 4) Shoreline restoration plantings and existing specimen trees and native shoreline vegetation.
 - 5) Vegetation, including required vegetation screening around parking and driving areas and land use buffers, provided it is designed and of a size that will not obscure the view from the public right-of-way to the water and the shoreline on the opposite side of the Lake at the time of planting or upon future growth. In the event of a conflict between required site screening and view preservation. View preservation shall take precedents over buffering requirements found in KZC 95.
 - 6) Open fencing that is designed not to obscure the view from the public right-of-way to the Lake and the shoreline on the opposite side of the Lake.
6. Dedication -The applicant shall execute a covenant or similar legal agreement, in a form acceptable to the City Attorney, and record the agreement with the King County Recorder's Office, to protect the view corridor. Land survey information shall be provided by the applicant for this purpose in a format approved by the Planning Official.

83.420 Public Access

1. General – Promoting a waterfront pedestrian corridor is an important goal within the City. Providing pedestrian access along Lake Washington enables the public to view and enjoy the scenic beauty, natural resources, and recreational activities that are found along the shoreline. This pedestrian corridor provides opportunities for physical recreation and leisure and serves as a movement corridor. Connections between the shoreline public pedestrian walkway and the public right-of-way serve to link the walkway with the larger city-wide pedestrian network.
- The applicant shall comply with the following pedestrian access requirements with new development for all uses and land divisions under KMC Chapter 22, pursuant to the standards of this section:
- a. Pedestrian Access Along the Water's Edge – Provide public pedestrian walkways along the water's edge.
 - b. Pedestrian Access From Water's Edge to Right-of-Way – Provide public pedestrian walkways designed to connect the shoreline public pedestrian walkway to the abutting right-of-way.
2. Public Pedestrian Walkway Location – The applicant shall locate public pedestrian walkways pursuant to the following standards:
- a. The walkways shall be designed and sited to minimize the amount of native vegetation removal, impact to existing significant trees, soil disturbance, and disruption to existing habitat corridor structures and functions.
 - b. The walkways shall be located along the water's edge between the development and the shoreline at an average of 10 feet but no closer than 5 feet landward of the OHWM so that

the walkway may meander and not be a straight line. In cases where the walkway on the adjoining property has been installed closer to the shoreline than allowed under this provision, the walkway extend within 5 feet of the OHWM in order to connect to the existing walkway.

- c. Locating the walkways adjacent to other public areas including street-ends, waterways, parks, and other public access and connecting trails, shall maximize the public nature of the access.
 - d. The walkways shall be situated so as to minimize significant grade changes and the need for stairways.
 - e. The walkways shall minimize intrusions of privacy for occupants and residents of the site by avoiding locations directly adjacent to residential windows and outdoor private open spaces, or by screening or other separation techniques.
 - f. The walkways shall be located so as to avoid undue interference with the use of the site by water-dependent businesses.
 - g. The Planning Official shall determine the appropriate location of the walkway on the subject property when planning for the connection of a future waterfront walkway on an adjoining property.
3. Development Standards Required for Pedestrian Improvements - The applicant shall install pedestrian walkways pursuant to the following standards:
- a. The walkways shall be at least 6 feet wide, but no more than 8 feet wide, and contain a permeable paved walking surface, such as unit pavers, grid systems, porous concrete, or equivalent material approved by the Planning Official.
 - b. The walkways shall be distinguishable from traffic lanes by pavement material, texture, or change in elevation.
 - c. The walkways shall not be included with other impervious surfaces for lot coverage calculations.
 - d. Permanent barriers which limit future extension of pedestrian access between the subject property and adjacent properties are not permitted.
 - e. Regulated public access shall be indicated by signs installed at the entrance of the public pedestrian walkway on the abutting right-of-way and along the public pedestrian pathway. The signs shall be located for maximum public visibility. Design, materials and location of the signage shall meet City specifications.
 - f. All public pedestrian walkways shall be provided through a minimum 6-foot wide easement or similar legal agreement, in a form acceptable to the City Attorney, and recorded with the King County Department of Records and Elections. Land survey information shall be provided by the applicant for this purpose in a format approved by the Planning Official.
4. Operation and Maintenance Requirements for Pedestrian Improvements – The following operation and maintenance requirements apply to all public pedestrian walkways required under this section:
- a. Hours of operation and limitations on accessibility – Unless otherwise required by the City, all required pedestrian walkways shall be open to the public between the hours of 10 am to dusk from March 21st to September 21st and the remainder of the year between the hours of 10 am to 5 pm.
 - b. The applicant is permitted to secure the subject property outside of the hours of operation noted in subsection 4.a above by a security gate, subject to the following provisions:
 - a. The gate shall remain in an open position during hours of permitted public access; and
 - b. Signage shall be included noting the hours of permitted public access.

- c. The Planning Official is authorized to approve a temporary closure when hazardous conditions are present that would affect public safety.
- d. Performance and maintenance.
 - a. No certificate of occupancy or final inspection shall be issued until all required public access improvements are completed, except under special circumstances approved by the Planning Official and after submittal of an approved performance security.
 - b. The owner, its successor or assigns, shall be responsible for the completion and maintenance of all required waterfront public access areas and signage on the subject property.
- 5. Exceptions
 - a. The requirement for the dedication and improvement of public access does not apply to:
 - a. Development, other than public entities such as government facilities and public parks, located within the Residential - L shoreline environment.
 - b. Development located within the Natural shoreline environment.
 - c. Detached Dwelling unit on one lot and normal appurtenances associated with this use that is not part of a land division. For development involving land division, public pedestrian access is required, unless otherwise excepted under this subsection.
- 6. Modifications
 - a. The Planning Official may require or grant a modification to the nature or extent of any required improvement for any of the following reasons:
 - 1) If the presence of critical areas, such as wetlands, streams, or geologically hazardous areas, preclude the construction of the improvements as required.
 - 2) To avoid interference with the operations of water-dependant uses, such as marinas.
 - 3) If the property contains unusual site constraints, such as size, configuration, topography, or location.
 - 4) If the access would create unavoidable health or safety hazards to the public.
 - b. If a modification is granted, the Planning Official may require that an alternate method of providing public access, such as a public use area or viewing platform, be provided.
 - c. Access from the right-of-way to the shoreline public access walkway may be waived by the Planning Official if all of following criteria are met:
 - 1) If public access along the shoreline of the subject property can be reached from an adjacent property,
 - 2) If the adjacent property providing access to the shoreline contains an existing public access walkway connecting with the public right-of-way and the maximum separation between public access entry points along the public right-of-way is 300 feet or less; and
 - 3) If the subject property does not contain a public use area required as a condition of development by the Planning Official under the provisions of this Chapter.

83.430 In-Water Construction

- 1. Standards – The following standards shall apply to in-water work, including, but not limited to, installation of new structures, repair of existing structures, restoration projects, and aquatic vegetation removal:
 - a. In-water structures and activities shall be sited and designed to avoid the need for future shoreline stabilization activities and dredging, giving due consideration to watershed

functions and processes, with special emphasis on protecting and restoring priority habitat and species.

- b. In-water structures and activities are not subject to the shoreline setbacks established in KZC 83.180.
- c. See KZC 83.370 for federal and state approval and timing restrictions.
- d. Removal of existing structures shall be accomplished so the structure and associated material does not re-enter the lake.
- e. Waste material and unauthorized fill, such as construction debris, silt or excess dirt resulting from in-water structure installation, concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, paper and any other similar material upland of or below the OHWM shall be removed.
- f. Measurements shall be taken in advance and during construction to ensure that no petroleum products, hydraulic fluid, cement, sediments, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into the lake during in-water activities. Appropriate spill clean-up materials must be on-site at all times, and any spills must be contained and cleaned immediately after discovery.
- g. In-water work shall be conducted in a manner that causes little or no siltation to adjacent areas. A sediment control curtain shall be used in those instances where siltation is expected. The curtain shall be maintained in a functional manner that contains suspended sediments during project installation.
- h. Any trenches, depressions, or holes created below the OHWM shall be backfilled prior to inundation by high water or wave action.
- i. Fresh concrete or concrete by-products shall not be allowed to enter the lake at any time during in-water installation. All forms used for concrete shall be completely sealed to prevent the possibility of fresh concrete from entering the lake.
- j. Alteration or disturbance of the bank and bank vegetation shall be limited to that necessary to perform the in-water work. All disturbed areas shall be protected from erosion using vegetation or other means.
- k. If at any time, as a result of in-water work, water quality problems develop, immediate notification shall be made to the Washington Department of Ecology.

83.440 Parking

1. General -

- a. Only parking associated with a permitted or conditional shoreline use shall be allowed, except that within the UM shoreline environment, surface or structured parking facilities may accommodate parking for surrounding uses and commercial parking uses.
- b. Parking as a primary use on a subject property is prohibited.

2. Number of Parking Spaces -

Uses must provide sufficient off-street parking spaces. The required number of parking stalls established in KZC Chapter 105, KZC 50.60 and with the applicable parking standards for each use shall be met.

3. Parking Location -

- a. Intent – To reduce the negative impacts of parking and circulation facilities on public spaces within the shoreline, such as shoreline public pedestrian walkways, public use areas, and view corridors along public rights-of-way.
- b. Standards - The applicant shall locate parking areas on the subject property according to the following requirements:

- 1) Parking is prohibited in the shoreline setback established in KZC 83.180, except as follows:
 - a) Subsurface parking is allowed, provided that:
 - i) The structure is designed to avoid the need for future shoreline stabilization as documented in a geotechnical report, prepared by a qualified geotechnical engineer or engineering geologist.
 - ii) The structure is designed to comply with shoreline vegetation standards established in KZC 83.400. As part of any proposal to install subsurface parking within the shoreline setback, the applicant shall submit site-specific documentation prepared by a qualified expert to establish that the design will adequately support the long-term viability of the required vegetation.
 - iii) The structure is designed to not impact public access and views to the Lake from the public right-of-way.
 - iv) Public access over subsurface parking structures shall be designed to minimize significant changes in grade.
 - b) The parking is designed as a short-term loading area to support a water-dependent use.
 - 2) Parking is prohibited on structures located over water.
 - 3) Parking, loading, and service areas for a permitted use activity shall not extend closer to the shoreline than a permitted structure unless:
 - a) The parking is incorporated within a structure, subject to the following standards:
 - i) The parking is subsurface, or
 - ii) The design of any above-grade structured parking incorporates vegetation and/or building surface treatment to provide an appearance comparable to the remainder of the building not used for parking.
 - b) The parking is accessory to a public park.
 - c) The parking is designed as a short-term loading area to support a water-dependent use.
4. Design of Parking Areas -
- a. Pedestrian Connections
 - 1) Parking areas shall be designed to contain pedestrian connections to public pedestrian walkways and building entrances. Pedestrian connections shall either be a raised sidewalk or composed of a different material than the parking lot material.
 - 2) Pedestrian connections must be at least 5 feet wide, excluding vehicular overhang.
 - b. Design of Surface Parking Lots – In addition to the perimeter buffering and internal parking lot landscaping provisions established in KZC Chapter 95, the applicant shall buffer all parking areas and driveways visible from required public pedestrian pathways or public use areas with appropriate landscaping screening that is consistent with the landscaping and buffering standards for driving and parking areas contained in KZC Chapter 95.
 - c. Design of Structured Parking Facilities - Each facade of a garage or a building containing above-grade structured parking visible from a required view corridor, or is facing a public pedestrian walkway, public use area, or public park must incorporate vegetation and/or building surface treatment to mitigate the visual impacts of the structured parking.

83.450 Screening of Storage and Service Areas, Mechanical Equipment and Garage Receptacles

1. Outdoor Use, Activity and Storage. Outdoor Use, Activity and Storage areas must comply with the following:
 - a. Comply with the shoreline setback established for the use with which they are associated.
 - b. Be located to minimize visibility from any street, Lake Washington, required public pedestrian walkway, public use area or public park.
 - c. Be screened from view from the street, adjacent properties, Lake Washington, required public pedestrian walkways, and other public use areas by a solid screening enclosure or within a building.
 - d. Outdoor dining areas and temporary storage for boats undergoing service or repair that are accessory to a marina are exempt from the placement and screening requirements of subsection (2) and (3) above.
2. Mechanical and similar equipment or appurtenances.
 - a. At-grade mechanical and similar equipment or appurtenances are not permitted within the shoreline setback.
 - b. Rooftop appurtenances and at or below grade appurtenances shall be screened with vegetation or a solid screening enclosure or located in such a manner as to not be visible from Lake Washington, required public pedestrian walkways, or public use areas.
3. Garbage and trash receptacles. Garbage and recycling receptacles must comply with the following:
 - a. Comply with the shoreline setback established for the use with which they are associated.
 - b. Be located to minimize visibility from any street, Lake Washington, required public pedestrian walkway, public use area or public parks.
 - c. Be screened from view from Lake Washington, required public pedestrian walkways, and other public use areas by a solid screening enclosure, such as a wooden fence without gaps, or within a building.
 - d. Exemptions – Garbage receptacles for detached dwelling units, duplexes, moorage facilities, parks, and construction sites, but not including dumpsters or other containers larger than a typical individual trash receptacle, are exempt from the placement and screening requirements of this subsection.

83.460 Signage

1. Standards – The following standards shall apply to signs within the shoreline jurisdiction:
 - a. Signage shall not interfere or block designated view corridors within the shoreline jurisdiction.
 - b. Signs shall comply with the shoreline setback standards contained in KZC 83.180.
 - c. Signage shall not be permitted to be constructed over water, except as follows:
 - 1) For retail establishments providing gas and oil sales for boats, where the facility is accessible from the water:
 - a) One sign, not exceeding 20 square feet per sign face, is permitted. The sign area for the water-oriented sign shall be counted towards the maximum sign area permitted in KZC Chapter 100.
 - b) Internally-illuminated signs are not permitted. Low-wattage external light sources that are not directed towards neighboring properties or Lake Washington are permitted, subject to approval by the Planning Official.

- c) Signs shall be affixed to a pier or wall-mounted. The maximum permitted height of a freestanding sign is 5 feet above the surface of the pier. A wall-mounted sign shall not project above the roofline of the building to which it is attached.
- 2) Boat traffic signs, directional signs, and signs displaying a public service message.
- 3) Interpretative signs in coordination with public access and recreation amenities.
- 4) Building addresses mounted flush to the end of a pier, with letters and numbers at least 4 inches high.

83.470 Lighting

- 1. General - Exterior lighting shall be controlled using limits on height, light levels of fixtures, light shields, time restrictions and other mechanisms in order to:
 - a. Prevent light pollution or other adverse effects that could infringe upon public enjoyment of the shoreline;
 - b. Protect residential uses from adverse impacts that can be associated with light trespass from higher-intensity uses; and
 - c. Prevent adverse effects on fish and wildlife species and their habitats.
- 2. Exceptions –
 - a. The following development activities are exempt from the submittal and lighting standards established in this section:
 - 1) Emergency lighting required for public safety;
 - 2) Lighting for public rights-of-way;
 - 3) Outdoor lighting for temporary or periodic events (e.g. community events at public parks);
 - 4) Seasonal decoration lighting; and
 - 5) Sign lighting, which is governed by KZC 83.460.
 - b. The following development activities are exempt from the submittal standards established in (3) below, but are still subject to the lighting standards contained in (4) below:
 - 1) Development of a detached dwelling unit or associated appurtenances;
 - 2) Piers and docks;
 - 3) Public Access Pier or Boardwalk; and
 - 4) Moorage buoy.
- 3. Submittal Requirements - All development proposing exterior lighting within the shoreline jurisdiction, except as otherwise indicated in subsection 2) above, shall submit a lighting plan and photometric site plan for approval by the Planning Official. The plan shall contain the following:
 - a. A brief written narrative, with accompanying plan or sketch, which demonstrates the objectives of the lighting.
 - b. The location, fixture type, mounting height, and wattage of all outdoor lighting and building security lighting, including exterior lighting mounted on piers or illuminating piers.
 - c. A detailed description of the fixtures, lamps, supports, reflectors, and other devices. The description shall include manufacturer's catalog specifications and drawings, including sections when requested.
 - d. If building elevations are proposed for illumination, drawings shall be provided for all relevant building elevations showing the fixtures, the portions of the elevations to be illuminated, and the illuminate levels of the elevations.

- e. Photometric data, such as that furnished by manufacturers, showing the angle of light emissions.
 - f. Computer generated photometric grid showing footcandle readings every 20 feet within the property or site, and 15 feet beyond the property lines, including Lake Washington, if applicable. Iso-footcandle contour line style plans are also acceptable.
4. Standards –
- a. Direction and Shielding –
 - 1) All exterior building-mounted and ground-mounted light fixtures shall be directed downward and use “fully shielded cut off” fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measure to conceal the light source from adjoining uses and direct the light toward the ground. For detached dwelling unit or associated appurtenances, this requirement shall apply to any light fixtures which are directed towards or face Lake Washington.
 - 2) Exterior lighting mounted on piers, docks or other water-dependent uses located at the shoreline edge shall be at ground or dock level, and be directed away from adjacent properties and the water.
 - 3) For properties located within the Natural shoreline environment, exterior lighting installations shall incorporate motion-sensitive lighting and lighting shall be limited to those areas where it is needed for safety, security, and operational purposes.
 - b. Lighting Levels –
 - 1) Exterior lighting installations shall be designed to avoid harsh contrasts in lighting levels.
 - 2) For properties located adjacent to a Natural shoreline environment, exterior lighting fixtures shall produce a maximum initial luminance value of 0.1 foot-candles (as measured at three feet above grade) at the site or environment boundary.
 - 3) For properties in the Urban Mixed shoreline environment located adjacent to residential uses in another shoreline environment or for commercial uses located adjacent to residential uses in the Urban Residential environment, exterior lighting fixtures shall produce a maximum initial luminance value of 0.6 horizontal and vertical foot-candles (as measured at three feet above grade) at the site boundary, and drop to 0.1 foot-candles onto the abutting property as measured within 15 feet of the property line.
 - 4) Exterior lighting shall not exceed a strength of 1 foot-candle at the water surface of Lake Washington, as measured waterward of the OHWM.
 - c. Height of Light Fixtures - The maximum mounting height of ground-mounted light fixtures shall be 12 feet. Height of light fixtures shall be measured from the finished floor or the finished grade of the parking surface, to the bottom of the light bulb fixture.
 - d. Other –
 - 1) Illumination of a building façade to enhance architectural features is not permitted.
 - 2) Where feasible, exterior lighting installations shall include timers, dimmers, sensors, or photocell controllers that turn the lights off during daylight hours or hours when lighting is not needed, to reduce overall energy consumption and eliminate unneeded lighting.

83.480 Water Quality, Stormwater, and Nonpoint Pollution

- 1. General - Shoreline development and use shall incorporate all known, available, and reasonable methods of prevention, control, and treatment to protect and maintain surface and/or ground water quantity and quality in accordance with KMC 15.52 and other applicable laws.

2. Submittal Requirements - All proposals for development activity or land surface modification located within the shoreline jurisdiction shall submit for approval a storm water plan with their application and/or request, unless exempted by the Public Works Official. The storm water plan shall include the following:
 - a. Provisions for temporary erosion control measures; and
 - b. Provisions for storm water detention, water quality treatment and storm water conveyance facilities, in accordance with the City's adopted surface water design manual in effect at the time of permit application.
3. Standards -
 - a. Shoreline development shall comply with the standards established in the City's adopted surface water design manual in effect at the time of permit application.
 - b. Shoreline uses and activities shall apply Best Management Practices (BMPs) to minimize any increase in surface runoff and to control, treat and release surface water runoff so that receiving properties, wetlands or streams, and Lake Washington are not adversely affected, consistent with the City's adopted surface water design manual. All types of BMPs require regular maintenance to continue to function as intended.

Low Impact Development techniques shall be considered and implemented to the greatest extent practicable, consistent with the City's adopted surface water design manual.
 - c. New outfalls or discharge pipes to Lake Washington shall be avoided, where feasible. If a new outfall or discharge pipe is demonstrated to be necessary, it shall be designed so that the outfall and energy dissipation pad is installed above the OHWM.
 - d. In addition to providing storm water quality treatment facilities as required in this section and the City's Surface Water Master Plan, the developer and/or property owner shall provide source control BMPs designed to treat or prevent storm water pollution arising from specific activities expected to occur on the site. Examples of such specific activities include, but are not limited to, carwashing at multifamily residential sites and oil storage at marinas providing service and repair.
 - e. No release of oils, hydraulic fluids, fuels, paints, solvents or other hazardous materials shall be permitted into Lake Washington. If water quality problems occur, including equipment leaks or spills, work operations shall cease immediately and the Public Works Department and other agencies with jurisdiction shall be contacted immediately to coordinate spill containment and cleanup plans.

It shall be the responsibility of property owner to fund and implement the approved spill containment and cleanup plans and to complete the work by the deadline established in the plans.
 - f. All materials that come into contact with water shall be constructed of untreated wood, cured concrete, steel or other approved non-toxic materials. Materials used for over-water decking or other structural components that may come into contact with water shall comply with regulations of responsible agencies (i.e. Washington State Department of Fish and Wildlife or Department of Ecology) to avoid discharge of pollutants.
 - g. The application of pesticides, herbicides, or fertilizers shall comply with the following standards:
 - 1) The application of pesticides, herbicides or fertilizers within shoreline setbacks shall utilize Best Management Practices (BMPs) outlined in the BMPs for Landscaping and Lawn/Vegetation Management Section of the 2005 Stormwater Management Manual for Western Washington, to prevent contamination of surface and ground water and/or soils, and adverse effects on shoreline ecological functions and values.

- 2) Pesticides, herbicides, or fertilizers shall be applied in a manner that minimizes their transmittal to adjacent water bodies. The direct runoff of chemical-laden waters into adjacent water bodies is prohibited. Spray application of pesticides shall not occur within 100 feet of open waters including wetlands, ponds, and streams, sloughs and any drainage ditch or channel that leads to open water except when approved by the City.
- 3) The use of pesticides, herbicides or fertilizers within the shoreline jurisdiction, including applications of herbicides to control noxious aquatic vegetation, shall comply with regulations of responsible federal and state agencies.
- 4) A copy of the applicant's National Pollutant Discharge Elimination System (NPDES) permit, issued from Washington State Department of Ecology, authorizing aquatic pesticide (including herbicides) to Lake Washington must be submitted to the Planning Department prior to the application.

83.490 Critical Areas – General Standards

1. The provisions of this Chapter do not extend beyond the shoreline jurisdiction limits specified in this Chapter and the Act. For regulations addressing critical area buffers that are outside of the shoreline jurisdiction, see KZC Chapter 85 and 90.
2. Avoiding impacts to critical areas.
 - a. An applicant for a land surface modification or development permit within a critical area or its associated buffer shall utilize the following mitigation sequencing guidelines, which appear in order of preference, during design of the proposed project:
 - 1) Avoiding the impact or hazard by not taking a certain action, or redesigning the proposal to eliminate the impact. The applicant shall consider reasonable, affirmative steps and make best efforts to avoid critical area impacts. If impacts cannot be avoided through redesign, or because of site conditions or project requirements, the applicant shall then proceed with the sequence of steps in subsection (2)(a)(2) through (7) of this subsection.
 - 2) Minimizing the impact or hazard by limiting the degree or magnitude of the action or impact with appropriate technology or by changing the timing of the action.
 - 3) Restoring the impacted critical areas by repairing, rehabilitating or restoring the affected critical area or its buffer.
 - 4) Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through plantings, engineering or other methods.
 - 5) Reducing or eliminating the impact or hazard over time by preservation or maintenance operations during the life of the development proposal, activity or alteration.
 - 6) Compensating for the adverse impact by enhancing critical areas and their buffers or creating substitute critical areas and their buffers as required in the KZC 83.500 and 510.
 - 7) Monitoring the impact, hazard or success of required mitigation and taking remedial action based upon findings over time.

In the required critical areas study, the applicant shall include a discussion of how the proposed project will utilize mitigation sequencing to avoid, minimize, and mitigate impacts to critical areas and associated buffers. The applicant shall seek to avoid, minimize and mitigate overall impacts based on the functions and values of all relevant critical areas.
 - b. In addition to the above steps, the specific development standards, permitted alteration requirements, and mitigation requirements of this Chapter and elsewhere in the KZC apply.
 - c. In determining the extent to which the proposal shall be further redesigned to avoid and minimize the impact, the City may consider the purpose, effectiveness, engineering feasibility, commercial availability of technology, best management practices, safety and cost

of the proposal and identified modifications to the proposal. The City may also consider the extent to which the avoidance of one type or location of a critical area could require or lead to impacts to other types or locations of nearby or adjacent critical areas. The City shall document the decision-making process used under this subsection as a part of the critical areas review conducted pursuant to KZC 500 and 510.

3. Trees in Critical Areas or Critical Area Buffers

- a. General - The intent of preserving vegetation in and near streams and wetlands and in geologically hazardous areas is to support the functions of healthy sensitive areas and sensitive area buffers and/or avoid disturbance of geologically hazardous areas.
- b. Submittal Requirements – When proposing to trim or remove any tree located within critical areas or critical area buffers, the property owner must submit a report to the City containing the following:
 - 1) A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of structures, driveways, access ways and easements.
 - 2) An arborist report explaining how the tree(s) fit the criteria for a nuisance or hazard tree. This requirement may be waived by the Planning Official if it is determined that the nuisance or hazard condition is obvious.
 - 3) A proposal detailing how the trees will be made into a snag or wildlife tree, including access and equipment, snag height, and placement of woody debris.
 - 4) For required replacement trees, a planting plan showing location, size and species of the new trees.
- c. Tree Removal Standards
 - 1) If a tree meets the criteria of a nuisance or hazard in a critical area in or its buffer as described below, then a “snag” or wildlife tree shall be created. If creation of a snag is not feasible, then the felled tree shall be left in place unless the Planning Official permits its removal in writing.
 - a) Hazard Tree Criteria. A hazard tree must meet the following criteria:
 - i) The tree must have a combination of structural defects and/or disease that makes it subject to a high probability of failure and is in proximity to moderate-high frequency of persons or property; and
 - ii) The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices.
 - b) Nuisance Tree Criteria. A nuisance tree must meet the following criteria:
 - i) The tree is causing obvious, physical damage to private or public structures, including but not limited to: sidewalk, curb, road, driveway, parking lot, building foundation, roof;
 - ii) The tree has been damaged by past maintenance practices that cannot be corrected with proper arboricultural practices; or
 - iii) The problems associated with the tree must be such that they cannot be corrected by any other reasonable practice including, but not limited to, the following:
 - Pruning of the crown or roots of the tree and/or small modifications to the site improvements, including but not limited to a driveway, parking lot, patio or sidewalk, to alleviate the problem.
 - Pruning, bracing, or cabling to reconstruct a healthy crown.

- 2) The removal of any tree will require the planting of a native tree of a minimum of 6 feet in height in close proximity to where the removed tree was located. The Planning Official shall approve the selection of native species and timing of installation.
4. Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers.
- a. Plants intended to mitigate for the loss of natural resource values are subject to the following requirements.
 - 1) Plant Source. Plant materials must be native and selected from the Kirkland Plant List or otherwise approved by the City's Urban Forester. Seed source must be as local as feasible, and plants must be nursery propagated unless transplanted from on-site areas approved for disturbance. These requirements must be included in the Mitigation Plan specifications.
 - 2) Installation. Plant materials must be supported only when necessary due to extreme winds at the planting site. Where support is necessary, stakes, guy wires, or other measures must be removed as soon as the plant can support itself, usually after the first growing season. All fertilizer applications to turf or trees and shrubs shall follow Washington State University, National Arborist Association or other accepted agronomic or horticultural standards.
 - 3) Fertilizer Applications. Fertilizers shall be applied in such a manner as to prevent their entry into waterways and wetlands and minimize entry into storm drains. No applications shall be made within 50 feet of a waterway or wetland, or a required buffer, whichever is greater, unless specifically authorized in an approved mitigation plan or otherwise authorized in writing by the Planning Official.

83.500 Wetlands

1. Applicability – The following provisions shall apply to wetlands and wetland buffers located within the shoreline jurisdiction, in place of provisions contained in Chapter 90 KZC. Provisions contained in Chapter 90 KZC that are not addressed in this section continue to apply, with the exception of the following subsections that shall not apply within the shoreline jurisdiction:
 - a. KZC 90.20 – General Exceptions
 - b. KZC 90.30 – Definitions
 - c. KZC 90.75 – Minor Lakes
 - d. KZC 90.140 – Reasonable Use Exception
 - e. KZC 90.160 – Appeals
 - f. KZC 90.170 – Planning/Public Works Official Decisions – Lapse of Approval
2. Wetland Determinations, Delineations, Regulations, Criteria, and Procedures - All determinations and delineations of wetlands shall be made using the criteria and procedures contained in the Washington State Wetlands Identification and Delineation Manual (Washington Department of Ecology, 1997). All determinations, delineations, and regulations of wetlands shall be based on the entire extent of the wetland, irrespective of property lines, ownership patterns, or other factors.
3. Wetland Determinations - Either prior to or during review of a development application, the Planning Official shall determine whether a wetland or its buffer is present on the subject property using the following provisions:
 - a. During or immediately following a site inspection, the Planning Official shall make an initial assessment as to whether any portion of the subject property or surrounding area (which shall be the area within 250 feet of the subject property) meets the definition of a wetland. If this initial site inspection does not indicate the presence of a wetland on the subject property or surrounding area, no additional wetland studies will be required at that time.

However, if the initial site inspection or information subsequently obtained indicates the presence of a wetland on the subject property or surrounding area, then the applicant shall follow the procedure in subsection (b) of this section.

- b. If the initial site inspection or information subsequently obtained indicates that a wetland may exist on or near the subject property or surrounding area, the applicant shall either (a) fund a study and report prepared by the City's consultant; or (b) submit a report prepared by a qualified professional approved by the City, and fund a review of this report by the City's wetland consultant.
 - c. If a wetlands study and report are required, at a minimum the report shall include the following:
 - 1) A summary of the methodology used to conduct the study;
 - 2) A professional survey which is based on the KCAS or plat-bearing system and tied to a known monument, depicting the wetland boundary on a map of the surrounding area which shows the wetland and its buffer;
 - 3) A description of the wetland habitat(s) found throughout the entire wetland (not just on the subject property) using the U.S. Fish & Wildlife Service classification system (Classification of Wetlands and Deepwater Habitats in the U.S., Cowardin et al., 1979);
 - 4) A description of nesting, denning, and breeding areas found in the wetland or its surrounding area;
 - 5) A description of the surrounding area, including any drainage systems entering and leaving the wetland, and a list of observed or documented plant and wildlife species;
 - 6) A description of historical, hydrologic, vegetative, topographic, and soil modifications, if any;
 - 7) A proposed classification of the wetland as Category I, II, III, or IV wetland; and
 - 8) A completed rating form using the *Washington State Wetland Rating System for Western Washington – Revised* (Washington State Department of Ecology Publication # 04-06-025, or latest version). [Note: When a wetland buffer outside of shoreline jurisdiction is proposed to be modified, the wetland in shoreline jurisdiction must be rated using the methodology required by KZC 90 to determine the appropriate buffer width. Ecology's rating system and the corresponding buffers only apply to those wetlands and buffers located in shoreline jurisdiction.]
 - d. Formal determination of whether a wetland exists on the subject property, as well as its boundaries and rating, shall be made by the Planning Official after preparation and review of the report, if applicable, by the City's consultant. The Planning Official's decision under this section shall be used for review of any development permit or activity proposed on the subject property for which an application is received within two (2) years of the decision; provided, that the Planning Official may modify any decision whenever physical circumstances have markedly and demonstrably changed on the subject property or the surrounding area as a result of natural processes or human activity.
4. Wetland Buffers and Setbacks
- a. No land surface modification shall occur and no improvement may be located in a wetland or its buffer, except as provided in KZC 83.500.4 through 83.500.10. See also KZC 83.490, Trees in Critical Areas or Critical Area Buffers; and KZC 83.490, Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Required or standard, buffers for wetlands are as follows and are measured from the outer edge of the wetland boundary:

Wetland Buffers

WETLAND CATEGORY AND CHARACTERISTICS	BUFFER
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Category I	
Natural Heritage Wetlands	215 feet
Bog	215 feet
Habitat score ¹ from 29 to 36 points	225 feet
Habitat score from 20 to 28 points	150 feet
Other Category I wetlands	125 feet
Category II	
Habitat score from 29 to 36 points	200 feet
Habitat score from 20 to 28 points	125 feet
Other Category II wetlands	100 feet
Category III	
Habitat score from 20 to 28 points	125 feet
Other Category III wetlands	75 feet
Category IV	
	50 feet

¹ Habitat score is one of three elements of the rating form.

Note: Buffer widths were developed by King County for its urban growth areas using the best available science information presented in *Chapter 9: Wetlands of Best Available Science – Volume 1: A Review of Scientific Literature*

Modification to Buffer for Divided Wetland Buffer - Where a legally established, improved road right-of-way or structure divides a wetland buffer, the Planning Official may approve a modification of the required buffer in that portion of the buffer isolated from the wetland by the road or structure, provided the isolated portion of the buffer:

- 1) Does not provide additional protection of the wetland from the proposed development; and
 - 2) Provides insignificant biological, geological or hydrological buffer functions relating to the portion of the buffer adjacent to the wetland.
- b. **Buffer Setback** – Structures shall be set back at least 10 feet from the designated or modified wetland buffer. The City may allow minor improvements within this setback that would clearly have no adverse effect during their construction, installation, use, or maintenance, on fish, wildlife, or their habitat or any vegetation in the buffer or adjacent wetland.
- c. **Storm Water Discharge**– Necessary surface discharges of storm water through wetland buffers and buffer setbacks may be allowed on the surface, but piped system discharges are prohibited unless approved pursuant to this section.

Storm water outfalls (piped systems) may be located within the buffer setback specified in subsection (b) of this section and within the buffers specified in subsection (a) of this section only when the City determines, based on a report prepared by a qualified professional under contract to the City and paid for by the applicant, that:

- 1) Surface discharge of storm water through the buffer would clearly pose a threat to slope stability, and
- 2) The storm water outfall will not:
 - a) Adversely affect water quality;
 - b) Adversely affect fish, wildlife, or their habitat;

- c) Adversely affect drainage or storm water detention capabilities;
- d) Lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and
- e) Be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas.

Storm water outfalls shall minimize potential impacts to the wetland or wetland buffer by meeting the following design standards:

- 1) Catch basins must be installed as far as feasible from the buffer boundary.
- 2) Outfalls must be designed to reduce the chance of adverse impacts as a result of concentrated discharges from pipe systems. This may include:
 - a) Installation of the discharge end as far as feasible from the sensitive area; and
 - b) Use of appropriate energy dissipation at the discharge end.
- d. Water Quality Facilities –Water quality facilities, as determined by the City, may be located within the required wetland buffers of KZC 83.500.4. The City may only approve a proposal to install a water quality facility within the outer one-half (1/2) of a wetland buffer if a feasible location outside of the buffer is not available and only if:
 - 1) It will not adversely affect water quality;
 - 2) It will not adversely affect fish, wildlife, or their habitat;
 - 3) It will not adversely affect drainage or storm water detention capabilities;
 - 4) It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;
 - 5) It will not be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas;
 - 6) The existing buffer is already degraded as determined by a qualified professional;
 - 7) Installation would be followed immediately by enhancement of an area equal in size and immediately adjacent to the affected portion of the buffer; and
 - 8) Once installed, it would not require any further disturbance or intrusion into the buffer.

The City may only approve a proposal by a public agency to install a water quality facility elsewhere in a wetland buffer if criteria 9 – 12 (below) are met in addition to 1 – 8 (above):

 - 9) The project includes enhancement of the entire buffer;
 - 10) The project would provide an exceptional ecological benefit off-site;
 - 11) The water quality facility, once installed, would not require any further disturbance or intrusion into the buffer; and
 - 12) There is no feasible alternative proposal that results in less impact to the buffer.
- f. Utilities and Rights-of-Way –The following work may only be allowed in critical areas and their buffers subject to City review after appropriate mitigation sequencing per KZC 83.490.2 has been considered and implemented, provided that activities will not increase the impervious area or reduce flood storage capacity:
 - 1) All utility work in improved City rights-of-way;
 - 2) All normal and routine maintenance, operation and reconstruction of existing roads, streets, and associated rights-of-way and structures; and

- 3) Construction of sewer or water lines that connect to existing lines in a sensitive area or buffer where no feasible alternative location exists based on an analysis of technology and system efficiency.

All affected critical areas and buffers shall be expeditiously restored to their pre-project condition or better. For purposes of this subsection only, "improved City rights-of-way" include those rights-of-way that have improvements only underground, as well as those with surface improvements.

- g. Minor Improvements – Minor improvements may be located within the sensitive area buffers specified in subsection (a) of this section. These minor improvements shall only be located within the outer one-half (1/2) of the sensitive area buffer, except where approved stream crossings are made.

The City may only approve a proposal to construct a minor improvement within an environmentally sensitive area buffer if:

- 1) It will not adversely affect water quality;
- 2) It will not adversely affect fish, wildlife, or their habitat;
- 3) It will not adversely affect drainage or storm water detention capabilities;
- 4) It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;
- 5) It will not be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas; and
- 6) It supports public or private shoreline access.

The City may require the applicant to submit a report prepared by a qualified professional that describes how the proposal will or will not comply with the criteria for approving a minor improvement.

- 5. Wetland Buffer Fence or Barrier - Prior to beginning development activities, the applicant shall install a six (6) foot high construction-phase chain link fence or equivalent fence with silt screen fabric, as approved by the Planning Official and consistent with City standards, along the upland boundary of the entire wetland buffer. The construction-phase fence shall remain upright in the approved location for the duration of development activities.

Upon project completion, the applicant shall install between the upland boundary of all wetland buffers and the developed portion of the site, either (1) a permanent three (3) to four (4) foot-tall split rail fence; or (2) equivalent barrier, as approved by the Planning Official. Installation of the permanent fence or equivalent barrier must be done by hand where necessary to prevent machinery from entering the wetland or its buffer.

- 6. Permit Process -

The City shall consolidate and integrate the review and processing of the critical areas aspects of the proposal with the shoreline permit required for the proposed development activity, except as follows .

Development Proposal	Permit Process
Wetland Modifications, or Wetland Buffer Modifications affecting greater than 25% of the standard buffer	Shoreline Variance pursuant to Process IIA, described in Chapter 141
Wetland Buffer Modifications affecting 25% or less of the standard buffer or Reasonable Use	Underlying development permit or

Exceptions	development activity
Wetland Restoration Plans	Underlying development permit or development activity

7. Modification of Wetlands –

- a. No land surface modification shall occur and no improvement shall be located in a wetland, except as provided in this subsection. Furthermore, all modifications of a wetland shall be consistent with *Kirkland's Streams, Wetlands and Wildlife Study* (The Watershed Company, 1998) and the *Kirkland Sensitive Areas Regulatory Recommendations Report* (Adolfson Associates, Inc., 1998).
- b. Submittal Requirements - The applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's consultant. The report shall include the following:
 - 1) A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.500 3) for a wetland;
 - 2) A description of the area of the site that is within the sensitive area or within the setbacks or buffers required by this Chapter;
 - 3) An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;
 - 4) An analysis of the mitigation sequencing as outlined in KZC 83.490.2;
 - 5) An assessment of the habitat, water quality, storm water detention, ground water recharge, shoreline protection, and erosion protection functions of the wetland and its buffer. The report shall also assess the effects of the proposed modification on those functions.
 - 6) Sensitive site design and construction staging of the proposal so that the development away from the sensitive area and/or sensitive area buffer and will minimize net loss of sensitive area and/or sensitive area buffer functions to the greatest extent feasible;
 - 7) A description of protective measures that will be undertaken, such as siltation curtains, hay bales and other siltation prevention measures, and scheduling the construction activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;
 - 8) Information specified in KZC 83.500 8);
 - 9) An evaluation of the project's consistency with the shoreline variance criteria contained in WAC 173-27-170; and
 - 10) Such other information or studies as the Planning Official may reasonably require.
- c. Decisional Criteria - The City may only approve an improvement or land surface modification in a wetland if:
 - 1) The project demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490.2;
 - 2) It will not adversely affect water quality;
 - 3) It will not adversely affect fish, wildlife, or their habitat;
 - 4) It will not have an adverse effect on drainage and/or storm water detention capabilities;
 - 5) It will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions;

- 6) It will not be materially detrimental to any other property or the City as a whole;
 - 7) Compensatory mitigation is provided in accordance with the table in subsection 8;
 - 8) Fill material does not contain organic or inorganic material that would be detrimental to water quality or fish and wildlife habitat;
 - 9) All exposed areas are stabilized with vegetation normally associated with native wetlands and/or buffers, as appropriate; and
 - 10) There is no feasible alternative development proposal that results in less impact to the wetland and its buffer.
8. **Compensatory Mitigation** –All approved impacts to regulated wetlands require compensatory mitigation so that the goal of no net loss of wetland function, value, and acreage is achieved. A mitigation proposal must utilize the mitigation ratios specified below as excerpted from: Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10. March 2006. *Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance (Version 1)*. Washington State Department of Ecology Publication #06-06-011a. Olympia, WA.

Compensatory Mitigation

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only ³⁵	Re-establishment or Creation (R/C) and Rehabilitation (RH) ¹	Re-establishment or Creation (R/C) and Enhancement (E) ¹	Enhancement Only ¹
All Category IV	1.5:1	3:1	1:1 R/C and 1:1RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I - based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Natural Heritage site	Not allowed	6:1 Rehabilitation of a Natural	Not allowed	Not allowed	Case-by-case

³⁵ These ratios are based on the assumption that the rehabilitation or enhancement actions implemented represent the average degree of improvement possible for the site. Proposals to implement more effective rehabilitation or enhancement actions may result in a lower ratio, while less effective actions may result in a higher ratio. The distinction between rehabilitation and enhancement is not clear-cut. Instead, rehabilitation and enhancement actions span a continuum. Proposals that fall within the gray area between rehabilitation and enhancement will result in a ratio that lies between the ratios for rehabilitation and the ratios for enhancement

Category and Type of Wetland Impacts	Re-establishment or Creation	Rehabilitation Only ³⁵	Re-establishment or Creation (R/C) and Rehabilitation (RH) ¹	Re-establishment or Creation (R/C) and Enhancement (E) ¹	Enhancement Only ¹
		Heritage site			
Category I Bog	Not allowed	6:1 Rehabilitation of a bog	Not allowed	Not allowed	Case-by-case

a. On Site versus Off-Site Mitigation

On-site mitigation is preferable to off-site mitigation. Given on-site constraints, the City may approve a plan to implement all or a portion of the required mitigation off-site, if the off-site mitigation is within the same drainage basin as the property that will be impacted by the project. The applicant shall demonstrate that the off-site mitigation will result in higher wetland functions, values, and/or acreage than on-site mitigation. Required compensatory mitigation ratios shall be the same for on-site or off-site mitigation, or a combination of both.

If the proposed on-site or off-site mitigation plan will result in the creation or expansion of a wetland or its buffer on any property other than the subject property, the plan shall not be approved until the applicant submits to the City a copy of a statement signed by the owners of all affected properties, in a form approved by the City Attorney and recorded in the King County Recorder's Office, consenting to the wetland and/or buffer creation or increase on such property and to the required maintenance and monitoring that may follow the creation or expansion of a wetland or its buffer.

b. Mitigation Plan and Monitoring and Maintenance Program

Applicants proposing to alter wetlands or their buffers shall submit a mitigation plan prepared by a qualified professional. The mitigation plan shall consist of a description of the existing functions and values of the wetlands and buffers affected by the proposed project, the nature and extent of impacts to those areas, and the mitigation measures to offset those impacts. The mitigation plan shall also contain a drawing that illustrates the compensatory mitigation elements. The plan and/or drawing shall list plant materials and other habitat features to be installed.

To ensure success of the mitigation plan, the applicant shall submit a monitoring and maintenance program prepared by a qualified professional. At a minimum, the monitoring and maintenance plan shall include the following:

- 1) The goals and objectives for the mitigation plan;
- 2) Success criteria by which the mitigation will be assessed;
- 3) Plans for a five (5) year monitoring and maintenance program;
- 4) A contingency plan in case of failure; and
- 5) Proof of a written contract with a qualified professional who will perform the monitoring program.

The monitoring program shall consist of at least two site visits per year by a qualified professional, with annual progress reports submitted to the City and all other agencies with jurisdiction.

The cost of producing and implementing the mitigation plan, the monitoring and maintenance program, reports, and drawing, as well as the review of each component by the City's wetland consultant, shall be borne by the applicant.

9. Wetland Buffer Modification

- a. Departures from the standard buffer requirements shall be approved only after the applicant has demonstrated consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490.2.
- b. Approved departures from the standard buffer requirements of KZC 83.500.4 allow applicants to modify the physical and biological conditions of portions of the standard buffer for the duration of the approved project. These approved departures from the standard buffer requirements do not permanently establish a new regulatory buffer edge. Future development activities on the subject property may be required to reestablish the physical and biological conditions of the standard buffer.
- c. Modification of Wetland Buffers when Wetland Is Also To Be Modified – Wetland buffer impact is assumed to occur when wetland fill or modification is proposed. Any proposal for wetland fill/modification shall include provisions for establishing a new wetland buffer to be located around the compensatory mitigation sites and to be equal in width to its standard buffer specified in KZC 83.500.4(a) or a buffer reduced in accordance with this section by no more than twenty-five percent (25%) of the standard buffer width in all cases, regardless of wetland category or basin type.
- d. Modification of Wetland Buffers when Wetland Is Not To Be Modified – No land surface modification may occur and no improvement may be located in a wetland buffer, except as provided for in this subsection.
 - 1) Types of Buffer Modifications – Buffers may be reduced through one of two means, either (a) buffer averaging, or (b) buffer reduction with enhancement. A combination of these two buffer reduction approaches shall not be used:
 - a) Buffer averaging requires that the area of the buffer resulting from the buffer averaging is equal in size and quality to the buffer area calculated by the standards specified in KZC 83.500.4. Buffers may not be reduced at any point by more than twenty-five (25%) percent of the standards specified in KZC 83.500.4, unless approved through a shoreline variance. Buffer averaging calculations shall only consider the subject property.
 - b) Buffers may be decreased through buffer enhancement. The applicant shall demonstrate that through enhancing the buffer (by removing invasive plants, planting native vegetation, installing habitat features, such as downed logs or snags, or other means), the reduced buffer will function at a higher level than the existing standard buffer.

The reduced on-site buffer area must be planted and maintained as needed to yield over time a reduced buffer that is equivalent to undisturbed Puget Lowland forests in density and species composition. At a minimum, a buffer enhancement plan shall provide the following: (a) a map locating the specific area of enhancement; (b) a planting plan that uses native species, including groundcover, shrubs, and trees; and (c) a monitoring and maintenance program prepared by a qualified professional consistent with the standards specified in KZC 83.500.8.

Buffers may not be reduced at any point by more than 25% of the standards in KZC 83.500.3(a). Buffer reductions of more than 25% approved through a shoreline

variance will be assumed to have direct wetland impacts that must be compensated for as described above under KZC 83.500.8.

- 2) Decisional Criteria – An improvement or land surface modification may only be approved in a wetland buffer only if:
- a) The development activity or buffer modification demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490.2.
 - b) It is consistent with *Kirkland's Streams, Wetlands and Wildlife Study* (The Watershed Company, 1998) and the *Kirkland Sensitive Areas Regulatory Recommendations Report* (Adolfson Associates, Inc., 1998);
 - c) It will not adversely affect water quality;
 - d) It will not adversely affect fish, wildlife, or their habitat;
 - e) It will not have an adverse effect on drainage and/or storm water detention capabilities;
 - f) It will not lead to unstable earth conditions or create an erosion hazard;
 - g) It will not be materially detrimental to any other property or the City as a whole;
 - h) Fill material does not contain organic or inorganic material that would be detrimental to water quality or to fish, wildlife, or their habitat;
 - i) All exposed areas are stabilized with vegetation normally associated with native wetland buffers, as appropriate; and
 - j) There is no feasible alternative development proposal that results in less impact to the buffer.

As part of the modification request, the applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's consultant. The report shall assess the habitat, water quality, storm water detention, ground water recharge, shoreline protection, and erosion protection functions of the buffer; assess the effects of the proposed modification on those functions; and address the ten (10) criteria listed in this subsection 9 d)(2) of this section.

10. Reasonable Use Exception –

An applicant for a detached dwelling unit who is unable to comply with the specific standards of this section may seek approval pursuant to the following standards and procedures:

- a. When allowed - A reasonable use exception may be granted if the strict application of this section would preclude all reasonable use of a site. The reasonable use process within the shoreline jurisdiction area applies to lots that are significantly constrained by critical area and critical area buffers, but still contain a minimum of 20 percent of the land area of the subject property outside of wetlands, either in wetland buffer or as upland area.
- b. Location Standards – This provision shall be limited to the following geographic areas within the City's shoreline jurisdiction:
 - i. Properties encumbered by wetlands or associated buffers in the Yarrow Bay Wetland complex.
 - ii. Properties located along Rose Point Lane that are encumbered by wetlands or wetland buffers in the Juanita Bay wetland complex.
- c. Submittal Requirements – As part of the reasonable use request, the applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's qualified professional. The report shall include the following:

- 1) A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.500 3) for a wetland;
 - 2) An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is feasible;
 - 3) Sensitive site design and construction staging of the proposal so that the development will have the least feasible impact on the sensitive area and sensitive area buffer;
 - 4) A description of the area of the site which is within the sensitive area or within the setbacks or buffers required by this Chapter;
 - 5) A description of protective measures that will be undertaken, such as siltation curtains, hay bales and other siltation prevention measures, and scheduling the construction activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;
 - 6) An analysis of the impact that the proposed development would have on the sensitive area and the sensitive area buffer;
 - 7) How the proposal minimizes net loss of sensitive area and/or sensitive area buffer functions to the greatest extent feasible;
 - 8) Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent feasible;
 - 9) Information specified in KZC 83.500.8 for Compensatory Mitigation;
 - 10) Such other information or studies as the Planning Official may reasonably require.
- d. Decisional Criteria – The City shall grant approval of a reasonable use exception only if all of the following criteria are met:
- 1) No permitted type of land use for the property with less impact on the sensitive area and associated buffer is feasible and reasonable, which in the Natural shoreline environment shall be one single-family dwelling;
 - 2) There is no feasible on-site alternative to the proposed activities, including reduction in size, density or intensity, phasing of project implementation, change in timing of activities, revision of road and lot layout, and/or related site planning considerations, that would allow a reasonable economic use with less adverse impacts to the sensitive area and buffer;
 - 3) Unless the applicant can demonstrate unique circumstances related to the subject property, the amount of site area that will be disturbed by structure placement or other land alteration, including but not limited to grading, utility installation, decks, driveways, paving, and vegetation, shall not exceed 3,000 square feet. The amount of allowable disturbance shall be the minimum feasible with the least impact on the sensitive area and the sensitive area buffer, given the characteristics and context of the subject property, sensitive area, and buffer;
 - 4) The applicant shall pay for a qualified professional to assist the City's determination of the appropriate limit for disturbance;
 - 5) The proposal is compatible in scale and use with other legally established development in the immediate vicinity of the subject property in the same zone and with similar site constraints;
 - 6) The proposal maximizes the amount of existing tree canopy that is retained;
 - 7) The proposal utilizes to the maximum extent feasible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent feasible net loss of sensitive area functions and values;

- 8) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;
 - 9) The proposal meets the mitigation, maintenance, and monitoring requirements of this Chapter;
 - 10) The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance of this Chapter or its predecessor; and
 - 11) The granting of the exception will not confer on the applicant any special privilege that is denied by this Chapter to other lands, buildings, or structures under similar circumstances.
- e. Modifications and Conditions – The City may approve a reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to 5 feet to reduce the impact on the sensitive area and sensitive area buffer. The required front yard may be reduced by up to 50 percent where the applicant demonstrates that the development cannot meet the City's code requirements without encroaching into the sensitive area buffer.

The City shall include in the written decision any conditions and restrictions that the City determines are necessary to eliminate or minimize any undesirable effects of approving an exception.

11. Wetland Restoration - City approval is required prior to wetland restoration. The City may permit or require the applicant or property owner to restore and maintain a wetland and/or its buffer by removing material detrimental to the area, such as debris, sediment, or vegetation. The City may also permit or require the applicant to restore a wetland or its buffer through the addition of native plants and other habitat features. See also KZC 83.490.3, Trees in Critical Areas or Critical Area Buffers; and KZC 83.490.4, Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Restoration may be required whenever a condition detrimental to water quality or habitat exists. When the City requires wetland restoration, the requirements of KZC 83.500.8, Compensatory Mitigation, shall apply.
12. Wetland Access - The City may develop access through a wetland and its buffer in conjunction with a public park, provided the purpose supports education or passive recreation, and is designed to minimize environmental impacts during construction and operation.

83.510 Streams

1. Applicability – The following provisions shall apply to streams and stream buffers located within the shoreline jurisdiction, in place of provisions contained in Chapter 90 KZC. Provisions contained in Chapter 90 KZC that are not addressed in this section continue to apply, with the exception of the following subsections that shall not apply within the shoreline jurisdiction:
 - a. KZC 90.20 – General Exceptions
 - b. KZC 90.30 – Definitions
 - c. KZC 90.75 – Minor Lakes
 - d. KZC 90.140 – Reasonable Use Exception
 - e. KZC 90.160 – Appeals
 - f. KZC 90.170 – Planning/Public Works Official Decisions – Lapse of Approval
2. Activities in or Near Streams – No Land surface modification shall occur and no improvements shall be located in a stream or its buffer except as provided in KZC 83.510.3 through 83.510.11.
3. Stream Determinations - The Planning Official shall determine whether a stream or stream buffer is present on the subject property using the following provisions. During or immediately following a site inspection, the Planning Official shall make an initial assessment as to whether a stream

exists on any portion of the subject property or surrounding area (which shall be the area within approximately 100 feet of the subject property).

If the initial site inspection indicates the presence of a stream, the Planning Official shall determine, based on the definitions contained in this Chapter and after a review of all information available to the City, the classification of the stream.

If this initial site inspection does not indicate the presence of a stream on or near the subject property, no additional stream study will be required.

If an applicant disagrees with the Planning Official's determination that a stream exists on or near the subject property or the Planning Official's classification of a stream, the applicant shall submit a report prepared by a qualified professional approved by the Planning Official that independently evaluates the presence of a stream or the classification of the stream, based on the definitions contained in this Chapter.

The Planning Official shall make final determinations regarding the existence of a stream and the proper classification of that stream. The Planning Official's decision under this section shall be used for review of any development activity proposed on the subject property for which an application is received within 2 years of the decision; provided, that the Planning Official may modify any decision whenever physical circumstances have markedly and demonstrably changed on the subject property or the surrounding area as a result of natural processes or human activity.

4. Stream Buffers and Setbacks

- a. Stream Buffers – No land surface modification shall occur and no improvement shall be located in a stream or its buffer, except as provided in this section. See also KZC 83.490(3), Trees in Critical Areas or Critical Area Buffers; and KZC 83.490(4), Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers.

Required or standard buffers for streams are as follows:

Stream Buffers

Stream Class	Primary Basins	Secondary Basins
A	75 feet	N/A
B	60 feet	50 feet
C	35 feet	25 feet

Stream buffers shall be measured from each side of the OHWM of the stream, except that where streams enter or exit pipes, the buffer shall be measured in all directions from the pipe opening. Essential improvements to accommodate required vehicular, pedestrian, or utility access to the subject property may be located within those portions of stream buffers that are measured toward culverts from culvert openings.

Where a legally established, improved road right-of-way or structure divides a stream buffer, the Planning Official may approve a modification of the required buffer in that portion of the buffer isolated from the stream by the road or structure, provided the isolated portion of the buffer:

- 1) Does not provide additional protection of the stream from the proposed development; and
 - 2) Provides insignificant biological, geological or hydrological buffer functions relating to the portion of the buffer adjacent to the stream.
- b. Buffer Setback – Structures shall be set back at least 10 feet from the designated or modified stream buffer. The City may allow within this setback minor improvements that would have no potential adverse effect during their construction, installation, use, or maintenance to fish, wildlife, or their habitat or to any vegetation in the buffer or adjacent stream.

- c. Storm Water Discharge – Necessary discharge of storm water through stream buffers and buffer setbacks may be allowed on the surface, but a piped system discharge is prohibited unless approved pursuant to this section. Storm water outfalls (piped systems) may be located within the buffer setback specified in subsection (b) of this section and within the buffers specified in subsection (a) of this section only when the City determines, based on a report prepared by a qualified professional under contract to the City and paid for by the applicant, that surface discharge of storm water through the buffer would clearly pose a threat to slope stability; and if the storm water outfall will not:

- 1) Adversely affect water quality;
- 2) Adversely affect fish, wildlife, or their habitat;
- 3) Adversely affect drainage or storm water detention capabilities;
- 4) Lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and
- 5) Be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas.

Storm water facilities shall minimize potential impacts to the stream or stream buffer by meeting the following design standards:

- 1) Catch basins must be installed as far as feasible from the buffer boundary.
- 2) Outfalls must be designed to reduce the chance of adverse impacts as a result of concentrated discharges from pipe systems. This may include:
 - a.) Installation of the discharge end as far as feasible from the sensitive area, and
 - b.) Use of appropriate energy dissipation at the discharge end.

- d. Water Quality Facilities –The City may only approve a proposal to install a water quality facility within the outer one-half (1/2) of a stream buffer if a suitable location outside of the buffer is not available and only if:

- 1) It will not adversely affect water quality;
- 2) It will not adversely affect fish, wildlife, or their habitat;
- 3) It will not adversely affect drainage or storm water detention capabilities;
- 4) It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;
- 5) It will not be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas;
- 6) The existing buffer is already degraded as determined by a qualified professional;
- 7) The installation of the water quality facility would be followed immediately by enhancement of an area equal in size and immediately adjacent to the affected portion of the buffer; and
- 8) Once installed, it would not require any further disturbance or intrusion into the buffer.

The City may only approve a proposal by a public agency to install a water quality facility elsewhere in a stream buffer if Criteria 9 – 12 (below) are met in addition to 1 – 8 (above):

- 9) The project includes enhancement of the entire on-site buffer;
- 10) The project would provide an exceptional ecological benefit off-site;

11) The water quality facility, once installed, would not require any further disturbance or intrusion into the buffer; and

12) There is no feasible alternative proposal that results in less impact to the buffer.

e. Utilities and Rights-of-Way – Provided that activities will not increase the impervious surface area or reduce flood storage capacity, the following work shall be allowed in critical areas and their buffers subject to City review after appropriate mitigation sequencing per KZC 83.490.2 has been considered and implemented:

- 1) All utility work in improved City rights-of-way;
- 2) All normal and routine maintenance, operation and reconstruction of existing roads, streets, and associated rights-of-way and structures; and
- 3) Construction of sewer or water lines that connect to existing lines in a sensitive area or buffer where no feasible alternative location exists based on an analysis of technology and system efficiency.

All affected critical areas and buffers shall be expeditiously restored to their pre-project condition or better. For purposes of this subsection only, “improved City rights-of-way” include those rights-of-way that have improvements only underground, as well as those with surface improvements.

f. Minor Improvements – Minor improvements may be located within the sensitive area buffers specified in subsection 83.510.4. These minor improvements shall be located within the outer one-half of the sensitive area buffer, except where approved stream crossings are made. The City may only approve a proposal to construct a minor improvement within a sensitive area buffer if:

- 1) It will not adversely affect water quality;
- 2) It will not adversely affect fish, wildlife, or their habitat;
- 3) It will not adversely affect drainage or storm water detention capabilities;
- 4) It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;
- 5) It will not be materially detrimental to any other property in the area of the subject property or to the City as a whole, including the loss of significant open space or scenic vistas; and
- 6) It supports public or private shoreline access.

The City may require the applicant to submit a report prepared by a qualified professional that describes how the proposal will or will not comply with the criteria for approving a minor improvement.

5. Stream Buffer Fence or Barrier - Prior to beginning development activities, the applicant shall install a 6-foot-high construction-phase chain link fence or equivalent fence, as approved by the Planning Official and consistent with City standards, along the upland boundary of the entire stream buffer with silt screen fabric. The construction-phase fence shall remain upright in the approved location for the duration of development activities.

Upon project completion, the applicant shall install between the upland boundary of all stream buffers and the developed portion of the site, either (1) a permanent three- to four-foot-tall split rail fence; or (2) equivalent barrier, as approved by the Planning Official. Installation of the permanent fence or equivalent barrier must be done by hand where necessary to prevent machinery from entering the stream or its buffer.

6. Permit Process -

The City shall consolidate and integrate the review and processing of the critical areas aspects of the proposal with the shoreline permit required for the proposed development activity, except as follows .

Development Proposal	Permit Process
Stream Relocations or Modifications, or Stream Buffer Modifications affecting more than one-third (1/3) of the standard buffer	Shoreline Variance pursuant to Process IIA, described in Chapter 141
Stream Buffer Modifications affecting less than one-third (1/3) of the standard buffer or Reasonable Use Exceptions	Underlying development permit or development activity
Bulkheads in Stream, Stream Crossings or Stream Rehabilitation	Underlying development permit or development activity

7. Stream Buffer Modification

- a. Departures from the standard buffer requirements shall be approved only after the applicant has demonstrated consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490.2.
- b. Approved departures from the standard buffer requirements of KZC 83.510.4(a) allow applicants to modify the physical and biological conditions of portions of the standard buffer for the duration of the approved project. These approved departures from the standard buffer requirements do not permanently establish a new regulatory buffer edge. Future development activity on the subject property may be required to reestablish the physical and biological conditions of the standard buffer.
- c. Types of Buffer Modification – Buffers may be reduced through one of two means, either (1) buffer averaging; or (2) buffer reduction with enhancement. A combination of these two buffer reduction approaches shall not be used.
 - 1) Buffer averaging requires that the area of the buffer resulting from the buffer averaging be equal in size and quality to the buffer area calculated by the standards specified in KZC 83.510.4(a). Buffers may not be reduced at any point by more than one-third (1/3) of the standards in KZC 83.510.4(a). Buffer averaging calculations shall only consider the subject property.
 - 2) Buffers may be decreased through buffer enhancement. The applicant shall demonstrate that through enhancing the buffer (by removing invasive plants, planting native vegetation, installing habitat features such as downed logs or snags, or other means) the reduced buffer will function at a higher level than the standard existing buffer. The reduced on-site buffer area must be planted and maintained as needed to yield over time a reduced buffer that is equivalent to an undisturbed Puget Lowland forests in density and species composition.

A buffer enhancement plan shall at a minimum provide the following: (1) a map locating the specific area of enhancement; (2) a planting plan that uses native species, including groundcover, shrubs, and trees; and (3) a monitoring and maintenance program prepared by a qualified professional consistent with the standards specified in KZC 83.500.8.

Buffers may not be reduced at any point by more than one-third (1/3) of the standards in KZC 83.510.4(a).
- d. Decisional Criteria – An improvement or land surface modification may only be approved in a stream buffer only if:

- 1) The project demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.490.2.
- 2) It is consistent with *Kirkland's Streams, Wetlands and Wildlife Study* (The Watershed Company, 1998) and the *Kirkland Sensitive Areas Regulatory Recommendations Report* (Adolfson Associates, Inc., 1998);
- 3) It will not adversely affect water quality;
- 4) It will not adversely affect fish, wildlife, or their habitat;
- 5) It will not have an adverse effect on drainage and/or storm water detention capabilities;
- 6) It will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions;
- 7) It will not be materially detrimental to any other property or the City as a whole;
- 8) Fill material does not contain organic or inorganic material that would be detrimental to water quality or to fish, wildlife, or their habitat;
- 9) All exposed areas are stabilized with vegetation normally associated with native stream buffers, as appropriate; and
- 10) There is no practicable or feasible alternative development proposal that results in less impact to the buffer.

As part of the modification request, the applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's consultant. The report shall assess the habitat, water quality, storm water detention, ground water recharge, and erosion protection functions of the buffer; assess the effects of the proposed modification on those functions; and address the 10 criteria listed in this subsection above.

8. Reasonable Use Exception –

An applicant for a detached dwelling unit who is unable to comply with the specific standards of this section may seek approval pursuant to the following standards and procedures:

- a. When allowed - A reasonable use exception may be granted if the strict application of this section would preclude all reasonable use of a site. The reasonable use process within the shoreline jurisdiction area applies to lots that are significantly constrained by critical area and critical area buffers, but still contain a minimum of 20 percent of the land area of the subject property outside of stream, either in stream buffer or as upland area.
- b. Location Standards – This provision shall be limited to properties encumbered by wetlands or associated buffers in the Yarrow Bay Wetland complex.
- c. Submittal Requirements – As part of the reasonable use request, the applicant shall submit a report prepared by a qualified professional and fund a review of this report by the City's qualified professional. The report shall include the following:
 - 1) A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.510 3) for a stream based on the definitions contained in this Chapter for a stream;
 - 2) An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is feasible;
 - 3) Sensitive site design and construction staging of the proposal so that the development will have the least feasible impact on the sensitive area and sensitive area buffer;
 - 4) A description of the area of the site which is within the sensitive area or within the setbacks or buffers required by this Chapter;

- 5) A description of protective measures that will be undertaken, such as siltation curtains, hay bales and other siltation prevention measures, and scheduling the construction activity to avoid interference with wildlife and fisheries rearing, nesting or spawning activities;
 - 6) An analysis of the impact that the amount of proposed development would have on the sensitive area and the sensitive area buffer;
 - 7) How the proposal minimizes net loss of sensitive area and/or sensitive area buffer functions to the greatest extent feasible;
 - 8) Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent feasible;
 - 9) Information specified in KZC 83.500.8 for Compensatory Mitigation;
 - 10) Such other information or studies as the Planning Official may reasonably require.
- d. Decisional Criteria – The City shall grant approval of a reasonable use exception only if all of the following criteria are met:
- 1) No permitted type of land use for the property with less impact on the sensitive area and associated buffer is feasible and reasonable, which in the Natural shoreline environment shall be one single-family dwelling;
 - 2) There is no feasible on-site alternative to the proposed activities, including reduction in size, density or intensity, phasing of project implementation, change in timing of activities, revision of road and lot layout, and/or related site planning considerations, that would allow a reasonable economic use with less adverse impacts to the sensitive area and buffer;
 - 3) Unless the applicant can demonstrate unique circumstances related to the subject property, the amount of site area that will be disturbed by structure placement or other land alteration, including but not limited to grading, utility installation, decks, driveways, paving, and vegetation, shall not exceed 3,000 square feet. The amount of allowable disturbance shall be the minimum feasible with the least impact on the sensitive area and the sensitive area buffer, given the characteristics and context of the subject property, sensitive area, and buffer;
 - 4) The applicant shall pay for a qualified professional to assist the City's determination of the appropriate limit for disturbance;
 - 5) The proposal is compatible in scale and use with other legally established development in the immediate vicinity of the subject property in the same zone and with similar site constraints;
 - 6) The proposal maximizes the amount of existing tree canopy that is retained;
 - 7) The proposal utilizes to the maximum extent feasible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent feasible net loss of sensitive area functions and values;
 - 8) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;
 - 9) The proposal meets the mitigation, maintenance, and monitoring requirements of this Chapter;
 - 10) The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance of this Chapter or its predecessor; and
 - 11) The granting of the exception will not confer on the applicant any special privilege that is denied by this Chapter to other lands, buildings, or structures under similar circumstances.

- e. Modifications and Conditions – The City may approve a reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to 5 feet to reduce the impact on the sensitive area and sensitive area buffer. The required front yard may be reduced by up to 50 percent where the applicant demonstrates that the development cannot meet the City's code requirements without encroaching into the sensitive area buffer.

The City shall include in the written decision any conditions and restrictions that the City determines are necessary to eliminate or minimize any undesirable effects of approving an exception.

- 9. Stream Relocation or Modification - The City may only permit a stream to be relocated or modified if water quality, conveyance, fish and wildlife habitat, wetland recharge (if hydrologically connected to a wetland), and storm water detention capabilities of the stream will be significantly improved by the relocation or modification. Convenience to the applicant in order to facilitate general site design shall not be considered.

A proposal to relocate or modify a Class A stream may only be approved if the Washington Department of Fish and Wildlife issues a Hydraulic Project Approval for the project. Furthermore, all modifications shall be consistent with *Kirkland's Streams, Wetlands and Wildlife Study* (The Watershed Company, 1998) and the *Kirkland Sensitive Areas Regulatory Recommendations Report* (Adolfson Associates, Inc., 1998).

If the proposed stream activity will result in the creation or expansion of a stream or its buffer on any property other than the subject property, the City shall not approve the plan until the applicant submits to the City a copy of a statement signed by the owners of all affected properties, in a form approved by the City Attorney and recorded in the King County Recorder's Office, consenting to the sensitive area and/or buffer creation or increase on such property.

Prior to the City's decision to authorize approval of a stream relocation or modification, the applicant shall submit a stream relocation/modification plan prepared by a qualified professional approved by the City. The cost of producing, implementing, and monitoring the stream relocation/modification plan, and the cost of review of that plan by the City's stream consultant shall be borne by the applicant. This plan shall contain or demonstrate the following:

- a. A topographic survey showing existing and proposed topography and improvements;
- b. The filling and revegetation of the existing stream channel;
- c. A proposed phasing plan specifying time of year for all project phases;
- d. The ability of the new stream channel to accommodate flow and velocity of 100-year storm events; and
- e. The design and implementation features and techniques listed below, unless clearly and demonstrably inappropriate for the proposed relocation or modification:
 - 1) The creation of natural meander patterns;
 - 2) The formation of gentle and stable side slopes, no steeper than two feet horizontal to one-foot vertical, and the installation of both temporary and permanent erosion-control features (the use of native vegetation on stream banks shall be emphasized);
 - 3) The creation of a narrow sub-channel (thalweg) against the south or west stream bank;
 - 4) The utilization of native materials;
 - 5) The installation of vegetation normally associated with streams, emphasizing native plants with high food and cover value for fish and wildlife;
 - 6) The creation of spawning areas, as appropriate;
 - 7) The re-establishment of fish population, as appropriate;

- 8) The restoration of water flow characteristics compatible with fish habitat areas;
- 9) Demonstration that the flow and velocity of the stream after relocation or modification shall not be increased or decreased at the points where the stream enters and leaves the subject property, unless the change has been approved by the City to improve fish and wildlife habitat or to improve storm water management;
- 10) A written description of how the proposed relocation or modification of the stream will significantly improve water quality, conveyance, fish and wildlife habitat, wetland recharge (if hydrologically connected to a wetland), and storm water detention capabilities of the stream; and
- 11) A monitoring and maintenance plan consistent with KZC 83.500.8 for wetlands.

Prior to diverting water into a new stream channel, a qualified professional approved by the City shall inspect the completed new channel and issue a written report to the City stating that the new stream channel complies with the requirements of this section. The cost for this inspection and report shall be borne by the applicant.

10. Stream bank Protection –

a. General–

- 1) Stream bank protection measures shall be selected to address site- and reach-based conditions and to avoid habitat impacts.
- 2) The selection of the streambank protection technique shall be based upon an evaluation of site conditions, reach conditions and habitat impacts.
- 3) Nonstructural or soft structural streambank protection measures shall be implemented unless demonstrated to not be feasible.

b. Submittal Requirements for Streambank Protection Measures – The following shall be submitted to the City:

An assessment prepared by a qualified professional containing the following:

- 1) An evaluation of the specific mechanism(s) of streambank failure as well as the site and reach-based causes of erosion.
- 2) An evaluation of the considerations used in identifying the preferred streambank solution technique. The evaluation shall address the provisions established in the Washington Department of Fish and Wildlife's *Integrated Streambank Protection Guidelines* (2003, or as revised).

c. Bulkheads or other erosion control practices using hardened structures that armor and stabilize the streambank from further erosion are not permitted along a stream, except as provided in this subsection. The City shall allow a bulkhead to be constructed only if:

- 1) It is not located within a wetland or between a wetland and a stream;
- 2) It is needed to prevent significant erosion;
- 3) The use of vegetation and/or other biological materials would not sufficiently stabilize the stream bank to prevent significant erosion;
- 4) The applicant submits a plan prepared by a qualified professional approved by the City that shows a bulkhead and implementation techniques that meet the following criteria:
 - a) There will be no adverse impact to water quality;
 - b) There will be no adverse impact to fish, wildlife, and their habitat;
 - c) There will be no increase in the velocity of stream flow, unless approved by the City to improve fish habitat;

- d) There will be no decrease in flood storage volumes;
 - e) The installation, existence, nor operation of the bulkhead will lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and
 - f) The installation, existence nor operation of the bulkhead will be detrimental to any other property or the City as a whole.
- 5) The Washington Department of Fish and Wildlife issues a Hydraulic Project Approval for the project.
- d. The stream bank protection shall be designed consistent with Washington Department of Fish and Wildlife's *Integrated Streambank Protection Guidelines* (2003, or as revised). The stabilization measure shall be designed and constructed to minimize the transmittal of water current and energy to other properties. Changes in the horizontal or vertical configuration of the land shall be kept to a minimum. Fill material used in construction of a bulkhead shall be non-dissolving and non-decomposing. The applicant shall also stabilize all exposed soils by planting native riparian vegetation with high food and cover value for fish and wildlife.
11. Stream Crossings - Stream crossings are not permitted, except as specified in this section. The City shall review and decide upon an application to cross a stream with an access drive, driveway, or street. A stream crossing shall be allowed only if:
- a. The stream crossing is necessary to provide required vehicular, pedestrian, or utility access to the subject property. Convenience to the applicant in order to facilitate general site design shall not be considered;
 - b. The Washington Department of Fish and Wildlife issues a Hydraulic Project Approval for the project; and
 - c. The applicant submits a plan prepared by a qualified professional approved by the City that shows the crossing and implementation techniques that meet the following criteria:
 - 1) There will be no adverse impact to water quality;
 - 2) There will be no adverse impact to fish, wildlife, and their habitat;
 - 3) There will be no increase in the velocity of stream flow, unless approved by the City to improve fish habitat;
 - 4) There will be no decrease in flood storage volumes;
 - 5) The installation, existence, nor operation of the stream crossing will lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and
 - 6) The installation, existence nor operation of the stream crossing will be detrimental to any other property or to the City as a whole.
 - d. The stream crossing shall be designed and constructed to allow passage of fish inhabiting the stream or which may inhabit the stream in the future. The stream crossing shall be designed to accommodate a 100-year storm event. The applicant shall at all times maintain the crossing so that debris and sediment do not interfere with free passage of water, wood and fish. The City shall require a security or perpetual maintenance agreement under KZC 90.145 for continued maintenance of the stream crossing.
 - e. A bridge is the preferred stream crossing method. If a bridge is not economically or technologically feasible, or would result in greater environmental impacts than a culvert, a proposal for a culvert may be approved if the culvert complies with the criteria in this subsection must be designed consistent with Washington Department of Fish and Wildlife's *Design of Road Culverts for Fish Passage* (2003, or as revised).

- f. If a proposed project requires approval through a Shoreline Conditional Use, the City may require that any stream in a culvert on the subject property be opened, relocated, and restored consistent with the provisions of this subsection.
12. Stream Rehabilitation - City approval is required prior to stream rehabilitation. The City may permit or require the applicant or property owner to restore and maintain a stream and/or its buffer by removing material detrimental to the stream and its surrounding area such as debris, sediment, or vegetation. The City may also permit or require the applicant to restore a stream or its buffer through the addition of native plants and other habitat features. See also KZC 83.490, Trees in Critical Areas or Critical Area Buffers; and KZC 83.490, Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Restoration may be required at any time that a condition detrimental to water quality or habitat exists. When the City requires stream rehabilitation, the mitigation plan and monitoring requirements of KZC 83.500.8 shall apply.

83.520 Geologically Hazardous Areas

1. The City of Kirkland Geologically Hazardous Area Regulations in Chapter 85 KZC (O-3719, dated December 1999 with subsequent amendments) is herein incorporated into this Chapter.
2. In addition to the required information contained in KZC 85.15, any required geotechnical report shall also contain any additional information specified under the definition of Geotechnical Report contained in KZC Section 83.80.

83.530 Flood Hazard Reduction

1. The City of Kirkland Flood Damage Regulations in Chapter 21.56 KMC (O-3946, dated June 1, 2004 with subsequent amendments) is herein incorporated into this Chapter.

83.540 Archaeological and Historic Resources

1. General - Uses, developments and activities on sites of historic or archeological significance or sites containing items of historic or archeological significance must not unreasonably disrupt or destroy the historic or archeological resource.
2. Standards -
 - a. Permits submitted for land surface modification or development activity in areas documented by the Washington State Office of Archaeology and Historic Preservation to contain archaeological resources shall include a site inspection and a draft written report prepared by a qualified professional archaeologist, approved by the City, prior to the issuance of a permit. In addition, the archaeologist will provide copies of the draft report to the affected tribe(s) and the State Office of Archaeology and Historic Preservation.

After consultation with these agencies, the archaeologist shall provide a final report that includes any recommendations from the affected tribe(s) and the State Office of Archaeology and Historic Preservation on avoidance or mitigation of the proposed project's impacts. The Planning Official shall condition project approval, based on the final report from the archaeologist, to ensure that impacts to the site are avoided or minimized consistent with federal and state law.
 - b. Shoreline permits shall contain provisions that require developers to immediately stop work and notify the City if any potential archaeological resources are uncovered during land surface modification or development activity. In such cases, the developer shall be required to provide for a site inspection and evaluation by a qualified professional archaeologist, approved by the City, to ensure that all feasible valuable archaeological data is properly handled. The City shall subsequently notify the affected tribe and the State Office of Archaeology and Historic Preservation. Failure to comply with this requirement shall be considered a violation of the shoreline permit.
 - c. If identified historical or archaeological resources are present, site planning and access to such areas shall be designed and managed to give maximum protection to the resource and surrounding environment.

- d. Interpretative signs, historical markers and other similar exhibits providing information about historical and archaeological features and natural areas shall be provided when appropriate.
- e. In the event that unforeseen factors constituting an emergency as defined in RCW 90.58.030 that necessitate rapid action to retrieve or preserve artifacts or data identified above, the project may be exempted from the permit requirement of these regulations. The City shall notify the State Department of Ecology, the State Attorney General's Office and the State Historic Preservation Office of such a waiver in a timely manner.
- f. Archaeological sites are subject to RCW 27.44 (Indian Graves and Records) and RCW 27.53 (Archaeological Sites and Records) and shall comply with WAC 25-48 or its successor as well as the provisions of this Chapter.
- g. Proposed changes to historical properties that are registered on the State or National Historic Register are subject to review under the National and State Registers' review process.

83.550 Nonconformances

- 1. General - This section establishes when and under what circumstances nonconforming aspects of a use or development must be brought into conformance with this Chapter. You need to consult the provisions of this section if there is some aspect of the use or development on the subject property that is not permitted under this Chapter.
- 2. When Conformance is Required - If an aspect, element or activity of or on the subject property conformed to the applicable shoreline regulations in effect at the time the aspect, element or activity was constructed or initiated, that aspect, element or activity may continue and need not be brought into conformance with this Chapter unless a provision of this section requires conformance. Further, nonconforming structures may be maintained, altered, remodeled, repaired and continued; provided that nonconforming structures shall not be enlarged, intensified, increased or altered in any way that increases the extent of the nonconformity, except as specifically permitted under this section.
- 3. Abatement of Nonconformance That Was Illegal When Initiated - Any nonconformance that was illegal when initiated must immediately be brought into conformance with this Chapter. The City may, using the provisions of WAC 173-27, abate any nonconformance that was illegal when initiated.
- 4. Special Provision for Damaged Improvements - Non-conforming structures that are damaged or destroyed by fire, explosion, flood, earthquake or other casualty may be restored or replaced in kind, provided that, the following are met:
 - a. The permit process is commenced within ~~twenty-four (24)~~ months of the date of such damage; and
 - b. The reconstruction does not expand, enlarge, or otherwise increase the non-conformity, except as provided for in this section; and
 - c. The reconstruction locates the structure in the same place where it was, or alternatively if moved, then the least environmentally damaging location relative to the shoreline and any critical areas; and
 - d. For existing residential structures built over the water, appropriate measures are taken to mitigate adverse impacts to the maximum extent feasible while still retaining the existing residential density, including but not limited to:
 - 1) Reducing the overwater footprint;
 - 2) Reducing the number or size of pilings to the extent allowed by site-specific engineering or design considerations;
 - 3) Softening existing hard shoreline stabilization measures to the extent allowed by site-specific characteristics;

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- 4) Raising the height of the structure off the water, provided that the height of the existing building is not increased; and
- 5) Incorporating grating into the re-built structure where feasible.

5. Certain Nonconformances Specifically Regulated –

a. General –

- 1) The provisions of this section specify when and under what circumstances certain nonconformances must be corrected. If a nonconformance must be corrected under this section, the applicant must submit all information necessary for the City to review the correction as part of the application for any development permit. In addition, the City will not permit occupancy until the correction is made.
- 2) If KZC 83.550.4 above of this section applies to a specific nonconformance, then the provisions of this section do not apply to that same nonconformance.

b. Non-conforming structure –

- 1) A nonconforming structure that is moved any distance must be brought into conformance.
- 2) Any structural alteration of a roof or exterior wall that does not comply with height, shoreline setback, or view corridor standards shall be required to be brought into conformance for the nonconforming height, setback or view corridor, except as provided otherwise in this Chapter. Excepted from this subsection is the repair or maintenance of structural members.
- 3) Increases in structure footprint outside of the shoreline setback or wetland or stream buffer shall be allowed, even if all or a portion of the previously approved footprint is within the shoreline setback, wetland or stream buffer.
- 4) If accessory structures are located within the shoreline setback, these existing nonconforming structures must be brought into conformance if the applicant is making an alteration to the primary structure, the cost of which exceeds 50 percent of the replacement cost of the structure.
- 5) Non-conforming structures that are expanded or enlarged within the shoreline setback must obtain a shoreline variance; provided that, a non-conforming detached dwelling unit may be enlarged without a shoreline variance where the following provisions apply:
 - a) The non-conforming structure must have been constructed prior to December 1, 2006, the date of the City's *Final Shoreline Analysis Report*.
 - b) Before implementing this provision, the applicant shall determine whether the provisions of Section 83.380 would allow for a reduced setback, based upon existing conditions on the subject property.
 - c) The structure must be located landward of the OHWM.
 - d) Any enlargement of the building footprint within the shoreline setback shall not exceed 10 percent of the gross floor area of the existing dwelling unit prior to the expansion. Other enlargements, such as upper floor additions, may be permitted if the addition is consistent with other provisions contained in this subsection.
 - e) The enlargement shall not extend further waterward than the existing primary residential structure. For purposes of this subsection, the improvements allowed within the shoreline setback as established in KZC 83.180, such as bay windows, chimneys, greenhouse windows, eaves, cornices, awnings and canopies shall not be used in determining the most waterward location of the building (see Plate XX).
 - f) The applicant must restore a portion of the shoreline setback area to offset the impact, such that the shoreline setback area will function at an equivalent or higher

level than the existing conditions. The restoration plan shall be prepared by a qualified professional and shall be reviewed by the Planning Official and/or a consultant who may approve, approve with conditions, or deny the request. If the proposal is consistent with the standards provided in this subsection, the Planning Official shall approve the plan or may impose conditions to the extent necessary to make the plan consistent with the provisions. If the proposal is denied, the applicant shall be informed of the deficiencies that caused its disapproval so as to provide guidance for its revision and resubmittal. The cost of producing and implementing the restoration plan and the review by City staff and/or a consultant shall be borne by the applicant. Examples include, but are not limited to:

- i) Installation of additional native vegetation within the shoreline setback that would otherwise not be required under this Chapter. At a minimum, the area of shoreline setback restoration and/or enhancement shall be equivalent to the area impacted by the improvement.
 - ii) Removal of an existing hard shoreline stabilization structure covering at least 15 linear feet of the lake frontage which is located at, below, or within 5 feet landward of the OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or enhancement of nearshore shallow-water habitat.
 - iii) Setting back hard shoreline stabilization structures or portions of hard shoreline stabilization structures from the OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography and beach/substrate composition.
 - iv) Other shoreline restoration projects that are demonstrated to result in an improvement to existing shoreline ecological functions and processes.
- g) The applicant must comply with the best management practices contained in KZC 83.480 addressing the use of fertilizer, herbicides and pesticides as needed to protect lake water quality.
- h) The applicant shall use "fully shielded cut off" light fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measure to conceal the light source from adjoining uses and the lake, and direct the light toward the ground for any exterior light sources located on the west façade of the residence or other façades with exterior light sources that is directed towards the lake.
- i) The remodel or expansion will not cause adverse impacts to shoreline ecological functions and/or processes as described on KZC 83.360.
- j) The provision contained in KZC 83.550.5.b.5 shall only be used once within any 5-year period.
- 6) A nonconforming detached dwelling unit that is located on a lot that has less than 3,000 square feet of building area lying landward of the required shoreline setback and upland of required wetland or stream buffers, may be rebuilt or otherwise replaced within the shoreline setback and required wetland or stream buffer without a shoreline variance, provided the following standards are met:
- a) The structure must be located landward of the OHWM.
 - b) The size of the building footprint shall not be increased and the reconstructed structure shall not extend further waterward than the existing primary residential structure. For purposes of this subsection, the improvements allowed within the shoreline setback as established in KZC 83.180, such as bay windows, chimneys, greenhouse windows, eaves, cornices, awnings and canopies shall not be used in determining the most waterward location of the building (see Plate XX)..

- c) The reconstruction does not expand, enlarge, or otherwise increase the non-conformity.
 - d) The reconstruction locates the structure in the least environmentally damaging location relative to the shoreline and the critical areas.
 - e) The structure must comply with any requirements of this Chapter, zoning, building, or fire codes in effect when the structure is built, other than allowed in the subsection.
- 7) A primary structure that does not conform to the required shoreline setback and is located on a lot that has less than 3,000 square feet of building area lying landward of the shoreline setback, not including the area located within the required side yard setbacks and up to 10 feet of a required front yard, may be rebuilt or otherwise replaced in its current location within the shoreline setback, provided the following standards are met:
- a) The structure must be located landward of the OHWM.
 - b) The size of the building footprint shall not be increased and the reconstructed structure shall not extend further waterward than the existing primary residential structure. For purposes of this subsection, the improvements allowed within the shoreline setback as established in KZC 83.180, such as bay windows, chimneys, greenhouse windows, eaves, cornices, awnings and canopies shall not be used in determining the most waterward location of the building (see Plate XX)..
 - c) The reconstruction does not expand, enlarge, or otherwise increase the non-conformity.
 - d) The structure must comply with any requirements of this Chapter, zoning, building, or fire codes in effect when the structure is built, other than allowed in this subsection.
- c. Nonconforming Use –
- 1) A nonconforming use may be continued by successive owners or tenants.
 - 2) Any nonconforming use, except for a detached dwelling, unit must be brought into conformance or discontinued if:
 - a) The applicant is making an alteration that increases the extent of the non-conformity, such as increasing the gross floor area of any structure that houses or supports the nonconforming use; or
 - b) The nonconforming use has ceased for 90 or more consecutive days. It shall not be necessary to show that the owner of the property intends to abandon such nonconforming use in order for the nonconforming rights to expire; or
 - c) The nonconforming use is replaced by another use. The City may allow a change from one nonconforming use to another such use if, through a Shoreline Conditional Use process, the City determines that the proposed new use will comply with the following standards:
 - i) The proposed use will be consistent with the policies and provisions of the Act and this Chapter and is compatible with the uses in the area as the preexisting use;
 - ii) The use or activity is not enlarged, intensified, increased or altered in a manner that increases the extent of the non-conformity;
 - iii) The structure(s) associated with the non-conforming use shall not be expanded in a manner that increases the extent of the non-conformity, including encroachment into areas, such as setbacks, and any wetlands, streams and/or associated buffers established by this Chapter, where new structures, development or use would not be allowed;

- iv) The change in use will not create adverse impacts to shoreline ecological functions and/or processes as described in KZC 83.360; and
 - v) Uses that are specifically prohibited or which would thwart the intent of the Act or this Chapter shall not be authorized.
- d. Non-conforming wetland or stream buffer –
- 1) If existing structures or other improvements are located within the wetland, stream or associated buffers, these structures and improvements must be brought into conformance if the applicant is making an alteration, change or any other work on the subject property in a consecutive 12-month period and the cost of the alteration, change or work exceeds 50 percent of the replacement cost of all existing structure and improvements on the subject property.
 - 2) If the cost threshold of subsection d above is not exceeded, the alterations or changes may occur provided that the alterations or changes comply with this code and no exterior alterations or changes are made to the nonconforming portion of the structure or improvement, unless otherwise authorized by this Chapter.
- e. Non-conforming lot size - An undeveloped lot, tract, parcel, site or division which was created or segregated pursuant to all applicable laws, ordinances and regulations in effect at the time, but which is nonconforming as to the present lot size or density standards may be developed so long as such development conforms to other requirements of this Chapter and the Act.
- f. Nonconforming public pedestrian walkway -
- 1) If a previously installed public shoreline access trail is subsequently found to have not been installed to the property line, the trail shall be extended to the property line consistent with conditions established in the original permit.
 - 2) If a previously installed shoreline access trail was subsequently found to have vegetation, fencing, other improvements or accessory structures installed that block connection to an adjacent shoreline access trail, the blockage shall be removed.
 - 3) Nonconforming shoreline access trails that were legally created shall not be required to comply with the dimensional standards or setback standards of this Chapter.
 - 4) The shoreline public access walkway requirements established in this Chapter must be brought into conformance as much as is feasible, based on available land area if the applicant completes an alteration to all primary habitable structure(s) in shoreline jurisdiction, the cost of which exceeds 50 percent of the replacement cost of all structures and improvements on the subject property.
- g. Nonconforming Shoreline Setback Vegetation- The vegetation requirements of this Chapter must conform as much as is feasible, based on available land area, in either of the following situations:
- 1) An increase of at least 10 percent in gross floor area of any structure located in shoreline jurisdiction; or
 - 2) An alteration to any structure(s) in shoreline jurisdiction, the cost of which exceeds 50 percent of the replacement cost of all structures on the subject property.
- h. Nonconforming Lighting - Exterior lighting must be brought into compliance with the requirements of this Chapter under the following circumstances:
- 1) The shielding requirements of KZC 83.470 shall be met when any nonconforming light fixture is replaced or moved.
 - 2) All other requirements of KZC 83.470 shall be met when there is an increase in gross floor area of more than 50 percent of the primary structures on the subject property.

- i. Prior approval of Shoreline Variance - A structure for which a shoreline variance has been issued shall be considered a legal nonconforming structure and the requirements of this section shall apply as they apply to preexisting nonconformities.
- j. Prior approval of Shoreline Conditional Use - A use which is listed in this Chapter as a conditional use, but existed prior to adoption of this Chapter or any relevant amendment and for which a conditional use permit has not been obtained shall be considered a nonconforming use.
- k. Any Other Nonconformance -
 - 1) If any nonconformance exists on the subject property, other than as specifically listed in the prior subsections of this section, these must be brought into conformance if:
 - a) The applicant is making any alteration or change or doing any other work in a consecutive 12-month period to an improvement that is nonconforming or houses, supports or is supported by the nonconformance, and the cost of the alteration, change or other work exceeds 50 percent of the replacement cost of that improvement; or
 - b) The use on the subject property is changed and this Chapter establishes more stringent or different standards or requirements for the nonconforming aspect of the new use than this code establishes for the former use.
 - c) Replacement costs shall not include costs relating to non-structural interior elements, such as but not limited to appliances, heating and cooling systems, electrical systems, and interior finishes.

83.560 Emergency Actions

- 1. When Allowed –
 - a. Emergency actions are those that pose an unanticipated and imminent threat to public health, safety, or the environment and which require immediate action or within a time too short to allow full compliance with the provisions of this Chapter. The Planning Official shall designate when such an action constitutes an emergency.
- 2. Standards –
 - a. Emergency actions shall meet the following standards:
 - 1) Use reasonable methods to address the emergency;
 - 2) Be designed to have the least possible impacts on shoreline ecological functions and processes; and
 - 3) Be designed to comply with the provisions of this Chapter, to the extent feasible.
 - b. Notice –
 - 1) The party undertaking the emergency action shall notify the Planning Department of the existence of the emergency and emergency action(s) within two (2) working day following commencement of the emergency action. Deleted: one (1)
 - 2) Within seven days following completion of emergency activity, the party shall provide the Planning Department a written description of the work undertaken, site plan, description of pre-emergency conditions and other information requested by the City to determine whether the action was permitted within the scope of an emergency action.
 - c. Decision –
 - 1) The Planning Official shall evaluate the action for consistency with the provisions contained in WAC 173-37-040(2)(d).

- 2) The Planning Official shall determine whether the action taken, or any part of the action taken, was within the scope of the emergency actions allowed in this section. The Planning Official may require mitigation for impacts to shoreline ecological functions.
- 3) If the Planning Official determines that the emergency action was not warranted he or she may require that the party obtain a permit and/or require remediation of or mitigation for the actions taken,

Proposed Changes to the Goals and Policies in Response to Comments from Karen Walter of the Muckleshoot Indian Tribe Fisheries Division

Residential - Page 13 of 47

Goal SMP-6.1 - Protect and enhance the character, quality and function of existing residential neighborhoods within the City's shoreline area.

Policy-6. 1 Permit structures or other development accessory to residential uses.

Accessory uses such as garages, sheds, accessory dwelling units, and fences are common features that are normally applicable to residential uses located landward of the ordinary high water mark and outside of any critical area or critical area buffer should be permitted.

Piers - Page 23 of 47

Policy SMP-11.3: Minimize aesthetic impacts of piers and their accessory components.

In order to minimize aesthetic impacts, piers should make use of non-reflective materials, minimize lighting facilities to that necessary to locate the pier at night, and focus illumination downward to minimize glare and ensure that lighting does not spillover onto the water surface.

Water Quality and Quantity – page 27 of 47

Policy SMP-15.4: Support public education efforts to protect and improve water quality.

Many residential yards within the shoreline area are dominated by lawn and landscaping, which can contribute water quality contaminants such as fertilizers, herbicides, and pesticides. Fertilizers and herbicides can affect the aquatic vegetation community, stimulating overgrowth of some species which can have a multitude of deleterious effects and suppress growth of other species. Pesticides also directly affect fish. Fish use their olfactory sense to find their way home. Garden chemicals that get into our lakes and streams may mask the smell fish use for homing. Scientists have found that pesticides also interfere with the ability of salmon to reproduce and avoid predators. Other effects include impaired reproduction, skeletal deformities, decreased swimming ability, and toxicity to salmon food sources. Presently, nutrient levels in Lake Washington do not represent a problem for salmonids (Final Kirkland Shoreline Analysis Report, 2006). Encouraging natural yard care practices and salmon-friendly landscape design can help to reduce the contaminant load into Lake Washington. Should nutrient levels continue to increase and represent a more significant problem, regulations limiting the use of pesticides, fertilizers and herbicides in the shoreline environment may become necessary.

Boat maintenance can also impact the aquatic environment with hydrocarbons, oils and other chemicals, and solvents. Providing information on boating practices, including operation and maintenance practices that can help prevent harmful substances from entering the water such as gasoline, two-stroke engine fuel, paint, and wood conditioner and other boat related substances, can also improve water quality. The City should also assist property owners by providing information on environmentally friendly methods of maintaining piers and decks.

Finally, the City should continue its efforts to increase the public's awareness of potential impacts of certain practices on water bodies and water quality, including improper disposal of hazardous materials.

Vegetation Management – page 31 of 47

Policy SMP-16.2: Minimize tree clearing and thinning activities along the shoreline and require mitigation for trees that are removed.

As a result of the functions that shoreline vegetation provides, it is important that vegetation conservation measures be implemented along the shoreline. New trees or other appropriate restoration should be installed to replace functions of trees that are removed, either through development or as part of on-going management of property. Tree removal or topping for the purposes of creating views should be prohibited. Limited thinning of trees to enhance views or for maintenance for health and vigor of the tree may be appropriate in certain circumstances, provided that this activity does not adversely impact tree health, ecological functions, and/or slope stability.

Applicants are encouraged to make removed trees available for City restoration projects.

Utilities - page 43 of 47

Policy SMP-25.2: Minimize impacts from the location, design, and maintenance of utility facilities located within the shoreline.

Careful planning and design is required to address impacts such as soil disturbance and intrusion on the visual setting. Potential adverse impacts should be minimized through the location, design and construction techniques used. For instance, where utility systems cross shoreline areas, clearing for installation or maintenance should be kept to a minimum width necessary to minimize impacts to trees and vegetation. Utilities should also be properly installed and maintained to protect the shoreline environment and water from contamination. The City should require location of utility lines prior to construction to avoid damaging the lines, incurring biological impacts, during construction.

Upon completion of utility installation or maintenance projects on shorelines, the shoreline area should be restored to pre-project configuration, replanted with native species and provided with maintenance care until the newly planted vegetation is established.

Even with revegetation, planting restrictions may limit the species that are replanted. As a result, existing functions may not be able to be fully restored. For this reason, utility corridors should be located outside of the shoreline jurisdiction, where possible.

Summary of Ecology (informal) comments on the City of Kirkland's DRAFT (June 2009) SMP

August 20, 2009

Generally, the DRAFT SMP is very well done (*Kudu's to City: staff, consultants, Planning Commission and involved Citizens*) providing what appears to be a fair balance of both utilization and protection of shoreline areas. The DRAFT appears to be based on supporting analysis developed throughout the SMP update process, for which Ecology is only suggesting some relatively minor amendments to ensure consistency with the Guidelines through-out future implementation of the Master Program.

SMP Definitions:

(Inconsistent definition of Appurtenance) Section 83.80 defines "Appurtenance" as including those listed under WAC 173-14-040 as well as adding "tool sheds, greenhouses, swimming pools, spas, accessory dwelling units and other accessory structures common to a single family residence". WAC 173-27-040(2)(g) provides a more limited definition only referencing the following structures as "appurtenances": "...garage; deck; driveway; utilities; fences; installation of a septic tank and drainfield and grading which does not exceed two hundred fifty cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark"

Discuss: The City's definition of "Appurtenances" appears too broad, for which Ecology would not support exempt protection (WAC 173-27-040(2)(c)) for all of the additional structures listed within this definition in the draft SMP.

SMP Uses:

*Even though the use matrix provided in section 83.170 lists: **Agriculture, Aquaculture, Forest Practices and Mining** as prohibited, all uses that are listed in WAC 173-26-241(i.e. **Agriculture, Aquaculture, Boating Facilities, Commercial, Forest Practice, Industry, In-Stream Structure, Recreation, Residential, Transportation, Utilities**) must be defined and either prohibited or listed within the SMP as conditional or permitted uses with appropriate development standards identified to satisfy the no net loss policy goal of the SMP.*

Suggestion: Each individual SMP Use should be defined (consistent w/Guidelines) and either listed as Prohibited, Conditional or Permitted including appropriate development standards. The City should consider either; providing an additional sub-section to section 83 summarizing (listing) all Prohibited Uses including definitions for each use, or individual insertion of this information into each SMP Use section (based on WAC 173-26-241).

Critical Areas:

The Critical Areas sections of the SMP all provide a "Reasonable Use Exemption" that is not consistent with the Guidelines. In reference to wetlands, Ecology has previously discussed this issue with the City and is aware of the intent of the "Reasonable Use Criteria/Exemption" to be limited to a small number of existing lots located within the Natural shoreline designation. However, Section 83.500.6 (Permit Process) provides both administrative flexibility to vary buffer widths up to 25% (prior to requiring a shoreline Variance) and suggests that all Reasonable Use determinations are exempt from requiring a

variance, which is not consistent with the Guidelines and cannot be supported by Ecology. The SMP Guidelines provide flexibility to be considered for constrained lots through review of a shoreline variance and do not provide a categorical exemption for departure from SMP dimensional standards as provided in many Critical Areas Ordinances.

Section 83.500.10 suggests that Reasonable Use Exemptions are limited to “detached dwelling units in the Natural shoreline environment”. It is not clear if the Reasonable Use Exemption is limited to the Natural environment or applicable anywhere within the City’s shoreline jurisdiction? Please Note: this comment/question would apply to all the Critical Areas referenced within the SMP.

Suggestion: Ecology would appreciate the opportunity to further discuss appropriate application of the City’s CAO-based Stream; Floodplain and Geologic Hazard standards within the SMP. It is understood that many of the Critical Areas within Kirkland’s shoreline jurisdiction do not meet the SMA threshold to be considered Shorelines of the State (i.e. streams under 20-cfs, no regulated floodplains, etc). Therefore, Ecology would hope to work with the City to ensure adequate protection for all critical areas within shoreline jurisdiction and consistency with the Guidelines.

The City has a few options to consider in relation to the referenced inconsistency between the Guideline requirements to review any departure from SMP dimensional standards as a variance vs. preserving the Reasonable Use criteria when considering future development on constrained shoreline properties:

- **Option 1:** Require a shoreline variance for any departure from SMP dimensional standards, but also include the City’s Reasonable Use standards permit review criteria as additional criteria under which the variance is reviewed.
- **Option 2:** Provide more specific geographic distinction of potential areas where the Reasonable Use Exemption criteria would be applied. Therefore, limiting the scope of allowed deviation from SMP standards to a defined number of lots for which build-out potential then needs to be considered within the Cumulative Impact Assessment and shown to maintain No Net Loss of Ecological Function. Note: under this option the City would either need to demonstrate that application of Reasonable Use exception would be limited to specific lots based on consistent interpretation or identify geographic limits within the SMP for reasonable use criteria consideration. In other words, the City would essentially need to pre-authorize changes to critical area dimensional standards within a defined area, as opposed to ‘exempting’ critical area or SMP standards to constrained lots.

(Flood Hazard) Suggestion: Ecology suggests that the City consider refining the (existing) general reference to the entire Flood Hazard ordinance to only reference those specific sections of the ordinance that are necessary to satisfy SMP Guideline requirements. The current general reference essentially brings the entire Flood Hazard program into the SMP, requiring a SMP amendment for any future changes to the existing Flood Management ordinance. Another option available for the City to consider is to not reference the existing Flood Hazard ordinance, but repeat the SMP relevant standards within the “Flood Hazard” section of the SMP. Therefore ensuring consistency with the City’s Flood Hazard ordinance, but not triggering an unnecessary SMP amendment for future amendments to the Flood Hazard program.

Shoreline Stabilization:

Within section 83.80, the City has provided specific definitions for: Shoreline Stabilization (89), Hard Structural Shoreline Stabilization (44), and Soft Shoreline Stabilization (95). A definition for "structural stabilization" does not appear within this section. However, section 83.300 consistently refers to "Structural Stabilization". It is not clear if this reference is intended to only refer to "Hard Structural Stabilization", or if it is also intended to include "Soft Shoreline Stabilization"?

(Discuss) 83.300.9.K, requiring adjacent property owner consent when beach restoration results in a change in OHWM location thus changing shoreline jurisdiction. This standard could be perceived as a barrier to future restoration projects within the City's shoreline areas.

Suggestion: The first sentence of standard 1 (General), c. should be rewritten by deleting the word, "prevent", to make the sentence easier to understand.

Suggestion: The City should clarify the definition of "Structural Stabilization" used throughout the SMP. It is not clear, if "structural Stabilization is the same as "Hard Structural Shoreline Stabilization"? If different, a definition will need to be added to distinguish the two meanings.

Discuss: Ecology suggests that the City replace the adjacent property owner notice requirement with the new flexibility offered through recent legislations (House Bill 2199) providing necessary relief to upland property owners that come into shoreline jurisdiction as a result of an adjacent restoration project. See specific suggestions within an email dated August 20, 2009 from Joe Burcar (Ecology) to Stacy Clauson (City Consultant).

Boating Facilities:

The City should clarify if section 83.290 (Marinas & Moorage Facilities...) are "Boating Facilities"? All of the uses listed in WAC 173-26-241 must be addressed within the updates SMP. Therefore, the City needs to define "Boating Facilities" and either prohibit or permit this use with appropriate development standards.

Suggestion: The City should define "Boating Facilities" as "Marinas & Moorage Facilities..." either within section 83.80 (Definitions) or 83.290. Further, pier/dock standards applicable to multi-family moorage should be moved from the single-family Residential section to the Boating Facility section of the SMP.

Residential Use:

Any Residential use allowed through the proposed SMP should be defined within the Master Program. Within the SMP, section 83.170 lists the following Residential Uses: Detached Dwelling Units, Accessory Dwelling Units, Detached, Attached or Stacked Dwelling Units, Houseboats, Assisted Living Facility, and Convalescent Center. With the exception of Houseboats, all of these Residential Uses are allowed in at least one SMP Designation, but are not defined within section 83.80 or 83.200. If allowed by the SMP, definitions will need to be added to ensure consistent evaluation of the variety of Residential Uses the City will be allowing.

As discussed within an email response from Joe Burcar (Ecology) to Stacy Clauson (City Consultant) dated 8/19/2009 it is not clear if Public Access is required (83.250) for land division of residential parcels?

Suggestion: The City can choose to either define the specific Residential Uses in the SMP in either the Definitions (83.80) or Residential (83.200) section of the SMP.

Suggestion: The City should clarify that public access will be required for land-division creating 4 or more new parcels consistent with WAC 173-26-241(3)(J). Ecology also suggests that the City include general criteria within this section to help define the appropriate type of Public Access to require as part of a future land-division creating 4 or more shoreline parcels.

Thank you for the opportunity to comment on this initial draft of the SMP. Please feel free to contact me with any specific questions related to these comments. As referenced above, please see (preliminary) specific comments within the attached SMP Checklist.

Sincerely,



Joe Burcar, Shoreline Planner – Department of Ecology
Jobu461@ecy.wa.gov or 425-649-7145

Attachments:

- SMP Checklist w/Ecology comments dated 8/2009
- Email from Joe Burcar to Stacy Clauson dated 8/19/2009
- Email from Joe Burcar to Stacy Clauson dated 8/20/2009

Burcar, Joe (ECY)

From: Burcar, Joe (ECY)
Sent: Thursday, August 20, 2009 11:50 AM
To: 'CLAUSON Stacy A'
Cc: tswan@ci.kirkland.wa.us; Paul Stewart; Clingman, Tom (ECY); Skowlund, Peter (ECY); Tallent, Geoff (ECY)
Subject: RE: HB 2199
Attachments: 2199.SL.pdf; 2199 HBR FBR 09.pdf

Hi Stacy,

Within the draft SMP the following standards (Section 83.300) are assumed to be associated with the City's proposed relief to "new" upland area brought into shoreline jurisdiction as a result of upland migration of OHWM associated with future shoreline restoration projects:

- i. *When shoreline stabilization measures intended to improve ecological functions result in shifting of the OHWM landward of the pre-modification location, structure setbacks from the OHWM or lot area for the purpose of calculating lot coverage shall be measured from the pre-modification location. The pre-modification location OHWM shall be recorded in a form approved by the City Attorney and recorded in the King County Department of Elections and Records.*
- k. *If shoreline stabilization measures intended to improve ecological functions shift the OHWM landward of the pre-modification location and result in expansion of the shoreline jurisdiction on any property other than the subject property, the plan shall not be approved until the applicant submits to the Planning Official a copy of a statement signed by the property owners of all affected properties, in a form approved by the City Attorney and recorded in the King County consenting to the shoreline jurisdiction creation and/or increase in such property.*

HB 2199 provides the authority for local governments to grant relief from shoreline master program development standards and use regulations under certain conditions. This provision defines both 'when' relief can be granted and a "relief criteria" for consideration of effected properties. HB 2199 is intended to both "protect the viability of shoreline restoration projects" while also providing relief to "hardships" associated with restoration projects that "shift shoreline management act regulations into areas that had not previously been regulated under the act or shifts the location of required shoreline buffers". Local governments can grant relief when shoreline restoration projects cause or would cause a landward shift in OHWM resulting in the following: (1) land that had not been previously regulated by the SMA is now brought into jurisdiction, (2) additional regulatory requirements apply that would not previously applied, or (3) strict application of SMA regulations would "preclude or interfere" with the intended (planned for) use of the property. "Relief Criteria" consists of: (A) The proposed relief is the "minimum necessary", (B) "after granting the proposed relief, there is a net environmental benefit from the restoration project", (C) The proposed relief needs to be consistent with both the restoration and the SMP, and (D) Mitigation associated with a project is not eligible for this relief. HB 2199 also provides submittal requirements to Ecology, for preparation of a project notice and comment period. However, these notice requirements can be exempted if the restoration is listed within the City's Restoration Plan as part of the SMP update. Finally, HB 2199 provides a clear definition of "Shoreline Restoration Project" stating "a project designed to restore impaired ecological function of a shoreline."

Generally, the City's relief provisions within the draft SMP do not appear consistent with HB2199. The intent of the City's provisions seem consistent, but the lack of relief criteria and the requirement for adjacent property consent could potentially threaten the viability of future shoreline restoration projects. Therefore, Ecology would offer the following suggestions for the City to consider related to this section of the SMP:

1. Provide a definition of shoreline restoration projects consistent with HB2199 to clearly distinguish restoration from project related mitigation.
2. Provide additional definition of 'who' could be eligible for this relief. In other words; would this provision apply to every shoreline residential lot that proposes to pull a bulkhead in exchange for a

- setback reduction – is this restoration or mitigation? Or, would this only apply to larger planned restoration projects such as bulkhead removal on a City Park?
3. Provide additional relief criteria consistent with HB 2199
 4. (Process) Decide if the additional process associated with submitting the proposal to Ecology is worth the exemption offered through HB 2199? If the City revises the SMP to comply with HB 2199, then eligible relief can be exempted from substantial development permit review. Alternatively, if the City does not choose to comply with HB 2199, then any relief from SMP provisions will need to be reviewed through applicable regulatory processes, for which anticipated relief should be considered within the programs Cumulative Impact Assessment to ensure no net loss.
 5. (Discussion) If the City chooses to not change this provision within the final locally approved SMP, Ecology may not support the required consent as this provision is perceived as a threat to the viability of future shoreline restoration projects. We would be happy to discuss this concern further with the City prior to local adoption of the updated SMP.

I have cc'd Geoff, Peter Skowlund and Tom Clingman on this email to keep them in the loop on applying this provision to an updated SMP. Please feel free to discuss this internally and request additional discussion with us, for which we can bring in either Geoff, Peter or Tom to look at any other options available to the City. (FYI) I have attached the final version of HB2199 as well as the briefing document for the legislation.

Regards,

Joe Burcar, Shoreline Planner
Department of Ecology - NW Regional Office
Shorelands & Environmental Assistance Program
ph 425.649.7145
fax 425.649.7098

From: CLAUSON Stacy A [mailto:SCLAUSON@Lcog.org]
Sent: Saturday, August 08, 2009 3:11 PM
To: Burcar, Joe (ECY)
Cc: tswan@ci.kirkland.wa.us; Paul Stewart
Subject: HB 2199

Hi Joe,

I had some questions about HB 2199 that I was hoping that you could help me with, as follows:

1. The City was hoping to be able to grant relief from shoreline setbacks and lot coverage that may be affected by a shift in OHWM without submitting to DOE. To do this, the provisions would be placed in the SMP language (as was proposed in Section 83.300). Is this possible?
2. I am still concerned about how a shift in OHWM affects an adjoining property that may suddenly become subject to SMP regulations, where they were not before. Our provisions have indicated that they need to be in agreement with the shift. While the ability to provide relief helps this situation, I still believe that the City will want the affected property owner to be involved and in agreement with this process, because the relief is not guaranteed (it must be approved by DOE) and may not cover all issues that the affected property owner is concerned about (relief is intended to be the minimum necessary). Do you have any suggestions to address these concerns or, if not, would DOE accept a provision similar to our current proposal that requires the adjoining property owner to agree?

Thanks for your assistance in answering these questions. Please feel free to contact me if you want to discuss further. Thanks,

Stacy Clauson
sclauson@lcog.org

Burcar, Joe (ECY)

From: Burcar, Joe (ECY)
Sent: Wednesday, August 19, 2009 10:22 AM
To: CLAUSON Stacy A; Teresa Swan; Amy Summe
Cc: Paul Stewart
Subject: RE: Expected comments on Kirkland SMP

Hi Stacy,

As far as Public Access requirements for future land-division, it is important to note the reference in the Guidelines to "multifamily" which includes subdivision of land into 4 or more lots (see below).

- *WAC 173-26-241(3)(J): New multiunit residential development, including the subdivision of land for more than four parcels, should provide community and/or public access in conformance to the local government's public access planning and this chapter.*

When I look at section 83.250 (Land Division) within your SMP, neither "multifamily" or a 4-lot threshold is clear. This section does reference the Public Access section (83.420) of the SMP, which in subsection (5a) appears to exempt residential development, but is then potentially contradicted by sub 5c, which again requires "public pedestrian access" for development involving land division. Again, neither "multifamily" nor a 4-lot threshold are referenced. Therefore, I am not sure how a 4-lot+ residential land-division within the Residential L shoreline environment would play out? Would "public pedestrian access" be required? Would it be required for a 2-lot sub-division as well?

I agree that the City has done a great job with shoreline Public Access jurisdiction wide, but I think this section needs to be redone to clarify when Public Access is required. I also am not clear if the 2 lots that could result in 4 or more lots means each of the 2 lots could be further divided into 4 or more lots (i.e. 8-plus lots) or collectively, both lots could be subdivided into more than 4-lots? Just to clarify, the Guidelines would only define an individual lot that could subdivide into 4 or more lots as "multifamily" residential, thus triggering compliance with WAC 173-26-241(3)(J).

Generally, I would say the City has a number of options:

(1) If the individual lots within this shoreline environment could subdivide into 4 or more lots and still meet base density, then the City can just require public access for land-division above the 4-lot threshold for which the specifics of the public access (dedication or other requirements) would be reviewed at the time of permit submittal. The case-by-case determination of the amount and type of public access is intended to ensure appropriate balance or proportional requirement of Public Access dedication to offset the proposed development (i.e. "multifamily" development is not a SMA preferred use, therefore requires incorporation of a preferred use - public access). This determination could be based on reference to existing City Parks/Recreation planning goals, etc. Depending on the scope of the development and any existing public access goals, the required Public Access might consist of visual access to the shoreline or a viewing deck. To incorporate this option, the SMP would need to be revised to clearly identify the 4-lot threshold and should provide some reference to a Planning Directors review or administrative review to determine the appropriate type and amount of public access.

(2) If the City has other Public Access planning studies that would address the lack of public value in requiring Public Access within the Residential L segment, then the procedures identified below (WAC 173-26-221) could be followed to justify the Public Access requirement as "infeasible" or identify alternative public access opportunities.

Public Access options from Guidelines WAC 173-26-221(4)(c):

(ii) Require that shoreline development by public entities, including local governments, port districts, state agencies, and public utility districts, include public access measures as part of each development project, unless such access is shown to be incompatible due to reasons of safety, security, or impact to the shoreline environment. Where public access planning as described in WAC 173-26-221(4)(c) demonstrates that a more effective public access system can be achieved through alternate means, such as focusing public access at the most desirable locations, local governments may institute master program provisions for public access based on that approach in lieu of uniform site-by-site public access requirements.

(iii) Provide standards for the dedication and improvement of public access in developments for water-enjoyment, water-related, and nonwater-dependent uses and for the subdivision of land into more than four parcels. In these cases, public access should be required except:

(A) Where the local government provides more effective public access through a public access planning process described in WAC 173-26-221 (4)(c).

(B) Where it is demonstrated to be infeasible due to reasons of incompatible uses, safety, security, or impact to the shoreline environment or due to constitutional or other legal limitations that may be applicable.

In determining the infeasibility, undesirability, or incompatibility of public access in a given situation, local governments shall consider alternate methods of providing public access, such as offsite improvements, viewing platforms, separation of uses through site planning and design, and restricting hours of public access.

(C) For individual single-family residences not part of a development planned for more than four parcels.

(iv) Adopt provisions, such as maximum height limits, setbacks, and view corridors, to minimize the impacts to existing views from public property or substantial numbers of residences. Where there is an irreconcilable conflict between water-dependent shoreline uses or physical public access and maintenance of views from adjacent properties, the water-dependent uses and physical public access shall have priority, unless there is a compelling reason to the contrary.

(v) Assure that public access improvements do not result in a net loss of shoreline ecological functions

From: CLAUSON Stacy A [mailto:SCLAUSON@Lcog.org]
Sent: Tue 8/18/2009 2:36 PM
To: Burcar, Joe (ECY); Teresa Swan; Amy Summe
Cc: Paul Stewart
Subject: RE: Expected comments on Kirkland SMP

Joe,

There is one item that I was hoping to discuss briefly: public access. As you know, Kirkland has a very well established public access system that has provided significant access opportunities for the public along our shoreline. The proposed SMP continues the provisions that have been so successful in the past, while making some changes to better address potential ecological issues.

We are concerned about one provision - requiring public access for properties that are undergoing subdivision within the Residential L environment. This area of the City has never been subject to the public access provisions in the past and is largely built-out. As a result, if we were to require public access in these areas, the pathways would largely lead to nowhere and would not have good connectivity. We have only about four properties that are able to subdivide in this area - 2 could result in more than 4 lots (see page 61 of the CIA for a map).

Given these existing conditions, is there anyway that Ecology could exercise flexibility in its interpretation of the public access provisions for subdivisions in the Residential - L environment?

-----Original Message-----

From: Burcar, Joe (ECY) [mailto:jobu461@ECY.WA.GOV]
Sent: Tue 8/18/2009 12:18 PM
To: Teresa Swan; CLAUSON Stacy A; Amy Summe
Cc: Paul Stewart
Subject: Expected comments on Kirkland SMP

Hey Guys,

I am going to be out of town starting this Friday through September 4th and just wanted to follow up with you before I leave. I am going to be working from home tomorrow and have budgeted some time to finish any

Kirkland related comments. Feel free to contact me throughout the day (tomorrow) either by email or on my cell phone (206-660-0860), if you want to discuss any SMP related issues over the phone.

I am planning on completing my comments within the checklist, which will include the Goals/Policies and Administrative sections of the SMP. Also, Stacy and I discussed a few of my previous comments, for which I plan to provide additional comments related to HB 2199, Goals/Policies related to promoting water-oriented uses, and verifying use of exemptions for soft-shoreline stabilization repairs.

I am not clear if I need to provide additional information on emergency exemptions and geotechnical review related to the feasibility of both hard and soft stabilization?

-Joe

Joe Burcar, Shoreline Planner
425.649.7145

SHORELINE MASTER PROGRAM SUBMITTAL CHECKLIST

This checklist is for use by local governments to satisfy the requirements of WAC 173-26-201(3)(a), relating to submittal of Shoreline Master Programs (SMPs) for review by the Department of Ecology (Ecology) under Chapter 173-26 WAC. The checklist does not create new or additional requirements beyond the provisions of that chapter.

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INSTRUCTIONS

This checklist is intended to help in preparation and review of local shoreline master programs (SMPs). Local governments should include a checklist with all SMPs submitted for review by Ecology.

Information provided at the top of the checklist identifies what local jurisdiction and specific amendment (e.g. comprehensive update, environment re-designation or other topic) the checklist is submitted for, and who prepared it. Indicate in the location column where in the SMP (or other documents) the requirement is satisfied. If adopting other regulations by reference, identify what specific adopted version of a local ordinance is being used, and attach a copy of the relevant ordinance (see example 1, below).

Draft submittals: For draft submittals, local governments may use the Comments column to note any questions or concerns about proposed language. Ecology may then use the Comment field to respond (see example 2, below).

Final submittals: When submitting locally-approved SMPs for Ecology review, leave the comment field blank. Ecology will use the comment field to develop final comments on the SMP.

Ecology has attempted to make this checklist an accurate and concise summary of rule requirements, however the agency must rely solely on adopted state rules and law in approving or denying a master program. This document does not create new or additional requirements beyond the provisions of state laws and rules [WAC 173-26-201(3)(a)].

EXAMPLE 1: reference other documents if necessary

STATE RULE (WAC) REQUIREMENTS	LOCATION	COMMENTS
Inventory of existing data and materials. WAC 173-26-201(3)(c)(i) through (x).	Appendix A: Shoreline Inventory and Analysis, Section 2.	
Wetland buffer requirements are adequate to ensure wetland functions are protected and maintained in the long-term, taking into account ecological functions of the wetland, characteristics of the buffer, and potential impacts associated with adjacent land uses. WAC 173-26-221(2)(c)(i)(B)	City Ordinance CA 19.072, adopted July 17 2003, p. 32	

EXAMPLE 2: for draft submittals, use Comments column

STATE RULE (WAC) REQUIREMENTS	LOCATION	COMMENTS
High-intensity environment designation criteria: Areas within incorporated municipalities, "UGAs," and "rural areas of more intense development" (see RCW 36.70A.070) that currently support or are planned for high-intensity water-dependent uses. WAC 173-26-211(5)(d)(iii)	Urban Industrial, p. 15 Urban Mixed, p. 18 Also see Appendix B, Use Analysis, Chapter 3, p. 12. Local government: SMP includes two urban designations that meet high-intensity criteria – Urban Industrial, and Urban Mixed. These alternative designations allow more specificity for public access, view and amenity requirements for the mixed use areas.	Ecology: Proposed alternative designations are consistent with the purposes and policies of the high-intensity criteria, as per WAC 173-26-211(4)(c). <u>Ecology comment format:</u> <i>Compliant [or] Non-Compliant:</i> <i>Based on SMP -Guidelines.</i> <i>Requirement/Suggestion:</i> <i>(Optional) Additional comment distinguishing between a "Required" change that the City can expect Ecology to require as part of our final review, or a "suggested" change to improve readability or for further consideration by the City.</i>

SHORELINE MASTER PROGRAM SUBMITTAL CHECKLIST

<p>Acronyms and abbreviations</p> <p>comp plan: Comprehensive Plan CUP: Conditional Use Permit SMA: Shoreline Management Act, RCW 90.58 SMP: Shoreline Master Program SSWS: Shorelines of Statewide Significance WAC: Washington Administrative Code</p>	<p>For more information</p> <p>www.ecy.wa.gov/programs/sea/SMA/index.html</p> <p>Ecology SMA Policy Lead: Peter Skowlund: (360) 407-6522</p>
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<p>Prepared for: City of Kirkland (Jurisdiction Name)</p> <p>Name of Amendment: Comprehensive SMP Update</p> <p>Prepared by: Stacy Clauson, Contract Planner (Name) <i>Ecology comments: Joe Burcar July & August 2009</i></p> <p>Date: June 22, 2009/ /</p>		
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DOCUMENTATION OF SMP DEVELOPMENT PROCESS

Public involvement, communication, and coordination

<p>Documentation of public involvement throughout SMP development process. WAC 173-26-201(3)(b)(i) and WAC 173-26-090 and 100. For SSWS, see WAC 173-26-251(3)(a)</p>	<p>Attachment 14 contains a log of that tracks public participation efforts by the City, including public meetings with the Planning Commission and City Council, Open Houses, and Focus Group meetings, as well as different approaches used to provide notice of the planning process, including an e-mail list serv, web page, public notice boards, direct mailings, cable channel notices, and newspaper articles and briefs.</p> <p>The City has consulted with representatives from state and federal agencies on a broad range of topics, including piers and shoreline stabilization. In addition, the City has consulted existing federal biological evaluations on these issues (RGP-1, 3, and the Programmatic Biological Consultation for Shoreline Stabilization).</p> <p>The City has also incorporated recommendations from the Chinook Salmon Conservation Plan developed by the WRIA 8 Forum as a source of potential site specific projects and land use and public outreach recommendations.</p>	<p>Kirkland: The City has held 23 public meetings and 2 Open Houses. In July, an Open House is scheduled, as well as 2 public hearings.</p> <p>Ecology: Compliant:</p> <ul style="list-style-type: none"> At this stage in the SMP update (prior to local adoption), the City have complied and/or exceeded the basic requirements of the Guidelines related to Public Involvement
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<p>Documentation of communication with state agencies and affected Indian tribes throughout SMP development. WAC 173-26-201(3)(b)(ii) and (iii), WAC 173-26-100(3). For saltwater shorelines, see WAC 173-26-221(2)(c)(iii)(B). For SSWS, see WAC 173-26-251(3)(a).</p>	<p>Attachment 14</p>	<p>Kirkland: The Muckleshoot Tribe and State Agencies have been sent notice of the planning process and invited to be a member of the City's e-mail list serve, which provides updates on public meetings and materials available for review.</p> <p>State agencies and the Muckleshoot Tribe have also been given opportunity to review the draft SMP in Summer, 2009.</p> <p>Ecology: Compliant:</p> <p><i>At this stage in the SMP update (prior to local adoption), the City have complied and/or exceeded the basic requirements of the Guidelines related to Public Involvement</i></p> <p>Suggestion:</p> <p><i>The City should submit documentation of past communication and are encouraged to continue to consult with the Tribe throughout the local adoption process.</i></p>
<p>Demonstration that critical areas regulations for shorelines are based on the SMA and the guidelines, and are at least equal to the current level of protection provided by the currently adopted critical areas ordinance. WAC 173-26-221(2)(b)(ii),(iii) and (c).</p>	<p>Section 83.490 through 83.530 address critical area regulations.</p>	<p>Kirkland: The draft regulations require use of the Washington State Wetland Rating System for Western Washington. The wetland requirements incorporate the buffers requirements that King County has adopted to regulate wetlands within their Urban Growth Area (UGA). The standards for compensatory mitigation utilize the mitigation ratios specified in the Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10 guidance as contained in Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance.</p> <p>Attachment 13 contains a map that shows the extent of wetland buffers based upon current wetland regulations as compared to that with the new buffers. This map demonstrates that the proposed buffers provide equivalent or more protection for wetlands within shoreline jurisdiction.</p> <p>The existing stream regulations as contained in Kirkland's Zoning Ordinance have been incorporated into the draft SMP</p>

		<p>The standards for geologically hazardous areas and flood hazard reduction have been incorporated by reference.</p> <p>Sections of the City's current critical area regulations that are inconsistent with WAC 173-26 have been excluded (e.g. general exceptions, etc.)</p> <p>Ecology: (Generally) Compliant:</p> <p><i>Reference previous comments to the City specific to wetlands. For Streams, Geologic Hazardous Areas and Flood areas see specific Ecology discussion under the Critical Areas section below.</i></p> <p>Question/Discussion:</p> <ul style="list-style-type: none"> All of the Critical Areas sections provide "Reasonable Use Exemptions", which is not consistent with the SMP Guidelines. Generally these proposals are reviewed under a shoreline variance.
<p>Documentation of process to assure that proposed regulatory or administrative actions do not unconstitutionally infringe upon private property rights. See "State of Washington, Attorney General's Recommended Process for Evaluation of Proposed Regulatory or Administrative Actions to Avoid Unconstitutional Takings of Private Property." WAC 173-26-186(5).</p>	<p>The draft regulations contain several provisions which have been intended to grant relief from specific SMP provisions, including:</p> <ul style="list-style-type: none"> - The Variance provisions contained within Chapter 141 - The Nonconformance Standards contained within Section 83.550 - The Wetland Modification and Buffer Modification provisions contained in Section 83.500. - The Stream Buffer Modification provisions contained within Section 83.510 - Nonconformance provisions contained in Section 83.550, specifically subsections 5.b)6) and 7). 	<p>Ecology: Non-Compliant:</p> <p><i>As referenced above, the Critical Areas sections of the SMP all provide a "Reasonable Use Exemption" that is not consistent with the Guidelines.</i></p> <p><i>In reference to wetlands, Ecology have discussed this issue with the City and understand the application of the "Reasonable Use Exemption" to be limited to a small number of existing lots located within the Natural shoreline designation. Section 83.500.6 (Permit Process) provides administrative flexibility to vary buffer widths up to 25% before requiring a shoreline Variance. However, all Reasonable Use determinations are exempted from a variance, which is not consistent with the Guidelines. Section 83.500.10 suggests that Reasonable Use Exemptions are limited to "detached dwelling units in the Natural shoreline environment". It is not clear, if the Reasonable Use Exemption is limited to the Natural environment or available anywhere within the City's shoreline jurisdiction?</i></p> <p>Discussion/Suggestion: <i>The City have a few options to consider in relation to the inconsistency between the Guideline requirement for a variance and preserving the Reasonable Use Exemption for constrained properties:</i></p> <p><i>Option 1: Require a shoreline variance for any departure from SMP dimensional standards, but also include the City's Reasonable Use standards/criteria as additional review criteria under which the variance is reviewed.</i></p>

		<p><i>Option 2: Provide more specific geographic distinction of potential areas where the Reasonable Use Exemption criteria would be considered. Therefore, limiting the scope of allowed deviation from SMP standards to a defined number of lots for which build-out potential then needs to be considered within the Cumulative Impact Assessment and shown to maintain No Net Loss of Ecological Function. <u>Note:</u> under this option the City would either need to demonstrate that application of Reasonable Use consideration would be limited to specific lots based on SMP regulatory thresholds or identify geographic limits within the SMP for reasonable use criteria consideration. <u>In other words, the City would essentially need to pre-authorize changes to critical area dimensional standards within a defined area (or defined lot configuration), as opposed to 'exempting' or not applying critical area or SMP standards to constrained lots.</u></i></p>
<p>Final submittal includes:</p> <ul style="list-style-type: none"> evidence of local government approval (or a locally approved "statement of intent to adopt"); new and/or amendatory text, environment designation maps (with boundary descriptions and justification for changes based on existing development patterns, biophysical capabilities and limitations, and the goals and aspirations of the local citizenry); a summary of the proposal together with staff reports and supporting materials; evidence of SEPA compliance; copies of all comments received with names and addresses. <p>WAC 173-26-110</p> <p>Submittal must include clear identification and transmittal of all provisions that make up the SMP. <i>This checklist, if complete, meets this requirement.</i> WAC 173-26-210(3)(a) and (h).</p>	<p>For purposes of DOE review of the City's draft SMP, the SMP Package includes the following:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Checklist and Attachments: <input type="checkbox"/> Adopting Ordinance (Attachment 1) <input type="checkbox"/> Inventory (Attachment 2) <input type="checkbox"/> Use Analysis (Attachment 3) <input type="checkbox"/> Goals and Policies (Attachment 4) <input type="checkbox"/> Shoreline Environment Designation Map (Attachment 5) <input type="checkbox"/> Chpt 83 (Attachment 6) <input type="checkbox"/> Administrative Provisions (Chpt 141, Attachment 7) <input type="checkbox"/> Flood Reduction (KMC 21.56, Attachment 8) <input type="checkbox"/> Geologically Hazardous Areas (KZC 85.15, Attachment 9) <input type="checkbox"/> Restoration Plan (Attachment 10) <input type="checkbox"/> Cumulative Impact 	<p>Ecology: TBD after local adoption and formal submittal to Ecology.</p>

	<p>Analysis (Attachment 11)</p> <ul style="list-style-type: none"> <input type="checkbox"/> Shoreline Environment Designation Report (Attachment 12) <input type="checkbox"/> Wetland Buffer Comparison Map (Attachment 13) <input type="checkbox"/> Public Involvement Documentation (see Attachment 14) <input type="checkbox"/> Copies of all public comments submitted with names and addresses (see Attachment 15 and 16) <p>The adopting ordinance and final documents will follow once the City's local adoption process is completed.</p>	
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Shoreline Inventory		
<p>Inventory of existing data and materials. WAC 173-26-201(3)(c)(i) through (x).</p> <p>For jurisdictions with critical saltwater habitats, see WAC 173-26-221(2)(c)(iii)(A)&(B).</p>	<p>Final Shoreline Analysis Report Including Shoreline Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline, dated 1 December 2006 (see Attachment 2)</p>	<p>Ecology: Compliant:</p> <p>See previous comments from Ecology to the City dated October 4, 2006.</p>

Shoreline Analysis		
<p>Characterization of shoreline ecosystems and their associated ecological functions that:</p> <ul style="list-style-type: none"> identifies ecosystem-wide processes and ecological functions; assesses ecosystem-wide processes to determine their relationship to ecological functions; identifies specific measures necessary to protect and/or restore the ecological functions and ecosystem-wide processes. WAC 173-26-201(3)(d)(i)(A). <p>Demonstration of how characterization was used to prepare master program policies and regulations that achieve no net loss of ecological functions necessary to support shoreline resources and to plan for restoration of impaired functions. WAC 173-26-201(3)(d)(i)(E).</p> <p>For vegetation, see WAC 173-26-221(5). For jurisdictions with critical saltwater habitats, see WAC 173-26-221(2)(c)(iii)(B).</p> <p>Description of data gaps, assumptions made and risks to ecological functions associated with SMP provisions. WAC 173-26-201(2)(a)</p> <p>Characterization includes maps of inventory information at appropriate scale. WAC 173-26-201(3)(c)</p>	<p>Final Shoreline Analysis Report Including Shoreline Inventory and Characterization for the City of Kirkland's Lake Washington Shoreline, dated 1 December 2006 (see Attachment 2)</p> <p>Section 5.0 of Final Shoreline Analysis Report contains an analysis of ecological functions and ecosystem-wide processes.</p> <p>Section 4.0 of the Final Shoreline Analysis Report identifies specific measures to protect and/or restore ecological functions and ecosystem-wide processes. In addition, Section 5.2 specifically addresses the effects of shoreline modifications on aquatic organisms and their habitats. This information was used as a basis for developing shoreline regulations for shoreline modifications.</p> <p>The ecological functions and ecosystem-wide processes</p>	<p>City Comment: The characterization was used to document baseline conditions and set the stage for protecting and restoring ecological functions. Information from the characterization was used to determine appropriate shoreline environment designations (see Attachment 12).</p> <p>Ecology: Compliant:</p> <p>See previous comments from Ecology to the City dated October 4, 2006.</p>

	<p>provided by vegetation are addressed throughout the Final Shoreline Analysis Report, including in Table 18.</p> <p>Attachment 12 contains a report demonstrating how the characterization was used to establish the shoreline environment designations.</p> <p>Inventory Maps are contained in Appendix E of the Final Shoreline Analysis Report.</p>	
<p>Use analysis estimating future demand for shoreline space and potential use conflicts based on characterization of current shoreline use patterns and projected trends. Evidence that SMP ensures adequate shoreline space for projected shoreline preferred uses. Public access needs and opportunities within the jurisdiction are identified. Projections of regional economic need guide the designation of "high-intensity" shoreline. WAC 173-26-201(3)(d)(ii) & (v); WAC 173-26-211(5)(d)(ii)(B)</p> <p>For SMPs that allow mining, demonstration that siting of mines is consistent with requirements of WAC 173-26-241(3)(h)(i).</p> <p>For SSWS:</p> <ul style="list-style-type: none"> evidence that SMP preserves adequate shorelands and submerged lands to accommodate current and projected demand for economic resources of statewide importance (e.g., commercial shellfish beds and navigable harbors) based on statewide or regional analyses, requirements for essential public facilities, and comment from related industry associations, affected Indian tribes, and state agencies. Evidence that public access and recreation requirements are based on demand projections that take into account activities of state agencies and interests of the citizens to visit public shorelines with special scenic qualities or cultural or recreational opportunities. WAC 173-26-251(3)(c)(ii) & (iii) Optimum implementation directives incorporated into comp plan and development regulations. WAC 173-26-251(2) & (3)(e) <p>For GMA jurisdictions, SMP recreational provisions are consistent with growth projections and level-of-service standards contained in comp plan. WAC 173-26-241(3)(i)</p>	<p>Use Analysis Component of the Shoreline Master Program for the City of Kirkland, included as Attachment 3</p> <p>Section 83.170 Shoreline Environments, Permitted Uses and Activities Chart.</p>	<p><i>Ecology: TBD - After a preliminary review, the analysis appears consistent with Guideline requirements. Ecology needs to follow-up with a more detailed review of the document prior to the City Councils involvement with the SMP update.</i></p>
<p>Restoration plan that:</p> <ul style="list-style-type: none"> identifies degraded areas, impaired ecological functions, and potential restoration sites; Establishes restoration goals and priorities, including SMP goals and policies that provide for restoration of impaired ecological functions; Identifies existing restoration projects and programs; Identifies additional projects and programs needed to achieve local restoration goals, and implementation strategies including identifying prospective funding sources sets timelines and benchmarks for implementing restoration projects and programs; provides mechanisms or strategies to ensure that restoration projects and programs will be implemented according to plans and to appropriately review the effectiveness of the projects and programs in meeting the overall restoration goals. WAC 173-26-186(8)(c); 201(2)(c)&(f) 	<p>Shoreline Restoration Plan Component of the Shoreline Master Program for the City of Kirkland, included as Attachment 10</p>	<p><i>Ecology: TBD - After a preliminary review, the Restoration Plan appears generally consistent with Guideline requirements. Ecology needs to follow-up with a more detailed review of the document prior to the City Councils involvement with the SMP update.</i></p>

<p>For critical freshwater habitats: incentives to restore water connections impeded by previous development. WAC 173-26-221(2)(c)(iv)(C)(III).</p> <p>For SSWS, identification of where natural resources of statewide importance are being diminished over time, and master programs provisions that contribute to the restoration of those resources. WAC 173-26-251(3)(b)</p>		
<p>Evidence that each environment designation is consistent with guidelines criteria [WAC 173-26-211(5)], as well as existing use pattern, the biological and physical character of the shoreline and the goals and aspirations of the community. WAC 173-26-211(2)(a). WAC 173-26-110(3)</p> <p>Lands designated as "forest lands of long-term significance" under RCW 36.70A.170 are designated either natural or rural conservancy shoreline environment designations. WAC 173-26-241(3)(e).</p> <p>For SSWS, demonstration that environment designation policies, boundaries, and use provisions implement SMA preferred use policies of RCW 90.58.020(1) through (7). WAC 173-26-251(3)(c)</p>	<p>Attachment 5 contains the Shoreline Environment Designation maps illustrating proposed shoreline environments</p> <p>Attachment 12 describes how the information gathered from the shoreline inventory was analyzed for consistency with the guidelines criteria, as well as existing use pattern and biological and physical character of the community.</p> <p>Section 83.30 of Attachment 6</p>	<p>Kirkland does not contain lands designated as "forest lands of long-term significance".</p> <p>The proposed environment designations respond to the SMA preferred use policies by 1) preserving 58% of the shoreline area in the Natural environment, 2) preserving 14% of the shoreline frontage for public access in the Urban Conservancy shoreline environment, 3) permitting water-dependent recreational uses and water-related recreational uses in appropriate shoreline environments, depending on the intensity and potential impacts of the use, as well as the characteristics of the shoreline environment.</p> <p><i>Ecology: After a preliminary review, the Environment Designations appear generally appropriate and consistent with the Guidelines. Ecology needs to follow-up with a more detailed review of the document after discussion with the City on the geographic scope of allowed Reasonable Use Exemptions (see discussion under Critical Areas) and prior to the City Councils involvement with the SMP update.</i></p>
<p>Assessment of how proposed policies and regulations cause, avoid, minimize and mitigate cumulative impacts to achieve no net loss policy. Include policies and regulations that address platting or subdividing of property, laying of utilities, and mapping of streets that establish a pattern for future development. Evaluation addresses:</p> <p>(i) <i>current circumstances</i> affecting the shorelines and relevant natural processes;</p> <p>(ii) reasonably <i>foreseeable future development</i> and use of the shoreline (including impacts from unregulated activities, exempt development, and other incremental impacts); and</p> <p>(iii) <i>beneficial effects</i> of any established regulatory programs under other local, state, and federal laws. WAC 173-26-201(3)(d)(iii) and WAC 173-26-186(8)(d)</p> <p>For jurisdictions with critical saltwater-habitats, identification of methods for monitoring conditions and adapting management practices to new information. WAC 173-26-221(2)(c)(iii)(B). For SSWS, evidence that standards ensuring protection of ecological resources of statewide importance consider cumulative impacts of permitted development. WAC 173-26-251(3)(d)(i)</p>	<p>SHORELINE CUMULATIVE IMPACTS ANALYSIS for the City of Kirkland Shoreline Master Program (Attachment 11).</p>	<p><i>Ecology: TBD - After a preliminary review, the Cumulative Impact Analysis appears generally consistent with Guideline requirements. Ecology needs to follow-up with a more detailed review of the document after discussion with the City on some of the questions raised within this (July 2009) review of the draft SMP and prior to the City Councils involvement with the SMP update.</i></p>

SMP CONTENTS		
<p>Any goals adopted as part of the SMP are consistent with the SMA. (Note: Goal statements are not required.)</p>	<p>Goals are contained in a new Shoreline Chapter that will be added to the City of Kirkland's Comprehensive Plan (see Attachment 4).</p>	<p>Ecology: Compliant:</p> <p><i>Ecology has been monitoring the changes to shoreline management goals as they have evolved through the local update process. The goals identified in the draft SMP appear to generally reflect the framework of the SMA and appear based on public input received at SMP meetings/workshops.</i></p>
<p>Policies (A) are consistent with guidelines and policies of the SMA; (B) address elements of RCW 90.58.100; and (C) include policies for environment designations, accompanied by a map or physical description of designation boundaries in sufficient detail to compare with comprehensive plan land use designations. (D) are consistent with constitutional and other legal limitations on regulation of private property. WAC 173-26-191(2)(a)(i)</p> <p>SMP implements preferred use policies of the SMA. WAC 173-26-201(2)(d)</p>		<p>Ecology: Compliant:</p> <p><i>The SMP Policies referenced by the City appear consistent with Guideline requirements.</i></p> <p>Suggestion:</p> <ul style="list-style-type: none"> • <i>Because the Policy's will be separated from the Regulations listed in section 83 (different section of the SMP), it is <u>suggested</u> that the City provide a cross reference to ensure 'policy intent' is not lost through implementation of the SMP.</i>
<p>Regulations: (A) are sufficient in scope and detail to ensure the implementation of SMA, SMP guidelines, and SMP policies; (B) include environment designation regulations; (C) include general regulations, use regulations that address issues of concern in regard to specific uses, and shoreline modification regulations; and, (D) are consistent with constitutional and other legal limitations on the regulation of private property. WAC 173-26-191(2)(a)(ii)</p>	<p>Regulations are contained in the following provisions:</p> <p><input type="checkbox"/> Chapter 83 (see Attachment 6), which includes:</p> <p>Authority and Purpose</p> <p>Definitions</p> <p>Shoreline Environment Designations and Shorelines of Statewide Significance</p> <p>Uses and Activities in Shoreline Environment</p> <p>Use Specific Regulations</p> <p>Shoreline Modification Regulations</p> <p>General Regulations</p> <p><input type="checkbox"/> Administrative Provisions (Chpt 141 in Attachment 7)</p>	<p>Ecology: Non-Compliant (Discuss):</p> <p><i>Even though the use matrix provided in section 83.170 lists Agriculture, Aquaculture, Forest Practices and Mining as prohibited, all uses that are listed in WAC 173-26-241(Agriculture, Aquaculture, Boating Facilities, Commercial, Forest Practice, Industry, In-Stream Structure, Recreation, Residential, Transportation, Utilities), should be defined and either prohibited or listed as conditional or permitted uses with appropriate development standards identified to satisfy the no net loss policy goal of the SMP.</i></p> <p>Suggestion:</p> <ul style="list-style-type: none"> • <i>The City should consider either, provide an additional section to section 83 listing all the prohibited uses including definitions for each use, or insert each individual SMP use (based on WAC 173-26-241), for which each use should be defined (consistent w/Guidelines) and either listed as prohibited, conditional or permitted with appropriate development standards.</i>

ENVIRONMENT DESIGNATIONS		
<p>Each environment designation includes: Purpose statements, classification criteria, management policies, and regulations (types of shoreline uses permitted, conditionally permitted, and prohibited; building or structure height and bulk limits, setbacks, maximum density or minimum frontage requirements, and site development standards). WAC 173-26-211(2)(4).</p>	<p>Management Policies are contained in Shoreline Goals and Policies (see Attachment 4).</p> <p>Purpose statement and designation criteria contained in Section 83.100-150 of Attachment 6.</p> <p>Section 83.170 contained the Shoreline Environments, Permitted Uses and Activities Chart outlining the types of shoreline uses permitted, conditionally permitted and prohibited</p> <p>Section 83.190 addresses shoreline development standards, including building height, lot coverage, shoreline setback, and density.</p> <p>Other miscellaneous provisions are contained in the General Regulations (see Sections 83.360-550)</p>	<p>Ecology: Compliant:</p> <p><i>The SMP Environment Designations appear generally consistent with Guideline requirements. See specific comments below for each specific Environment Designation.</i></p>
<p>An up-to-date map accurately depicting environment designation boundaries on a map. If necessary, include common boundary descriptions. WAC 173-26-211(2)(b); WAC 173-26-110(3);</p>	<p>See Attachment 5.</p>	<p>Provisions addressing interpretation of map are contained in Section 83.90 (see Attachment 6).</p>
<p>Statement that undesigned shorelines are automatically assigned a conservancy environment designation. WAC 173-26-211(2)(e).</p>	<p>Section 83.90 of Attachment 6 addresses undesigned properties</p>	<p>Ecology: Compliant:</p> <p><i>The referenced section appears consistent with this Guideline requirement.</i></p>
<p>Natural environment. WAC 173-26-211(5)(a)</p>		
<p>Designation criteria: Shorelines that are ecologically intact and performing functions that could be damaged by human activity, of particular scientific or educational interest, or unable to support human development without posing a safety threat. WAC 173-26-211(5)(a)(iii)</p>	<p>Policy SMP-2.1 in Attachment 4 addresses this designation criteria.</p> <p>Section 83.100 of Attachment 6.</p> <p>Attachment 12 contains an analysis of how this designation criterion was implemented when assigning proposed shoreline designations.</p>	<p>Ecology: Compliant:</p> <p><i>The referenced attachment provides sufficient information illustrating appropriate designation of Natural shoreline areas.</i></p>

<p>Prohibition on new:</p> <p>uses that would substantially degrade ecological functions or natural character of shoreline. WAC 173-26-211(5)(a)(ii)(A)</p> <p>Commercial uses; industrial uses; nonwater oriented recreation; roads, utility corridors, and parking areas. WAC 173-26-211(5)(a)(ii)(B)</p> <p>development or significant vegetation removal that would reduce the capability of vegetation to perform normal ecological functions. WAC 173-26-211(5)(a)(ii)(G)</p> <p>subdivision of property in a configuration that will require significant vegetation removal or shoreline modification that adversely impacts ecological functions. WAC 173-26-211(5)(a)(ii)(G)</p>	<p>Section 83.170 - Shoreline Environments, Permitted Uses and Activities Chart (see Attachment 6).</p> <p>Most of the Natural environment consists of streams and wetlands, which have additional protections under Section 83.500 and SMP 83.510 (see Attachment 6).</p> <p>Section 83.490.3 addresses removal of significant trees within critical areas, including wetlands and streams.</p>	<p>Ecology: Compliant:</p> <p><i>Note: See comments above (Regulations) pertaining to section 83.170 and prohibited uses (i.e. all SMA uses listed in WAC 173-26-241 need to be defined then prohibit within the SMP).</i></p>
<p>For single family residential development: limits on density and intensity to protect ecological functions, and requirement for CUP. WAC 173-26-211(5)(a)(ii)(C)</p>	<p>Section 83.170 - Shoreline Environments, Permitted Uses and Activities Chart identifies a Conditional Use process for single family development in the Natural Environment. Further, footnote 20 indicates that within the Natural Environment, land divisions may not create any new lot that would be wholly contained within shoreland area in this shoreline environment.</p>	<p>Ecology: Compliant:</p> <p><i>Note: See comments under "Critical Areas" in reference to Reasonable Use Exemptions. Independent of the Reasonable Use issue to discuss with the City, the referenced SMP sections appear consistent with this Guideline requirement.</i></p>
<p>For commercial forestry: requirement for CUP, requirement to follow conditions of the State Forest Practices Act. WAC 173-26-211(5)(a)(ii)(D)</p>	<p>Forest Practices not permitted (see Section 83.170).</p>	<p>Ecology: Compliant:</p> <p><i>Note: See comments under "Forest Practices" below (i.e. define use then prohibit the use).</i></p>
<p>For agriculture: low intensity use allowed if subject to appropriate limits or conditions to assure that the use does not expand or practices don't conflict with purpose of the designation. WAC 173-26-211(5)(a)(ii)(E)</p>	<p>Agriculture not permitted (see Section 83.170).</p>	<p>Ecology: Compliant:</p> <p><i>Note: See comments under "Agriculture" in sections below.</i></p>
<p>Low intensity public uses such as scientific, historical, cultural, educational research uses, and water-oriented recreational access allowed if ecological impacts are avoided. WAC 173-26-211(5)(a)(ii)(F)</p>	<p>Section 83.170 - Shoreline Environments, Permitted Uses and Activities Chart</p> <p>Most of the Natural environment consists of streams and wetlands, which have additional protections under Section 83.500.12 and SMP 83.510.</p>	<p>City Comment: See use listings for boat launch (non-motorized), public access facility, scientific research, etc.</p> <p>Ecology: Compliant:</p> <p><i>The Guidelines allow for water-oriented recreational access. Therefore, launching of non-motorized boats seems appropriate.</i></p>
<p>Rural conservancy. WAC 173-26-211(5)(b)</p>		
<p>Designation criteria: areas outside municipalities or UGAs with: (A) low-intensity, resource-based uses, (B) low-intensity residential uses, (C) environmental limitations such as steep banks or floodplains, (D) high recreational or cultural value, or (E) low-intensity water-dependent uses. WAC 173-26-211(5)(b)(iii)</p>	<p>Not applicable.</p>	

<p>Restrictions on use and development that would degrade or permanently deplete resources. Water-dependent and water-enjoyment recreation facilities are preferred uses. Low intensity, water-oriented commercial and industrial uses limited to areas where those uses have located in the past or at sites that possess conditions and services to support the development. WAC 173-26-211(5)(b)(ii)(A) and (B)</p> <p>For SMPs that allow mining, see WAC 173-26-241(3)(h).</p>	<p>Not applicable.</p>	
<p>Prohibition on new structural shoreline stabilization and flood control works except where there is documented need to protect an existing primary structure (provided mitigation is applied) or to protect ecological functions. WAC 173-26-211(5)(b)(ii)(C).</p>	<p>Not applicable.</p>	
<p>Development standards for residential use that preserve existing character of the shoreline. Density, lot coverage, vegetation conservation and other provisions that ensure no net loss of shoreline ecological functions.</p> <p>Density or lot coverage limited to a maximum of ten percent total impervious surface area within the lot or parcel, or alternative standard that maintains the existing hydrologic character of the shoreline. (May include provisions allowing greater lot coverage for lots legally created prior to the adoption of a master program prepared under these guidelines, if lot coverage is minimized and vegetation is conserved.) WAC 173-26-211(5)(b)(ii)(D).</p>	<p>Not applicable.</p>	
<p>Aquatic. WAC 173-26-211(5)(c)</p>		
<p>Designation criteria: Areas waterward of the ordinary high-water mark (OHWM). WAC 173-26-211(5)(c)(iii)</p>	<p>Policy SMP - 2.6 (see Attachment 4).</p> <p>Section 83.150 (see Attachment 6).</p> <p>Attachment 12 contains an analysis of how this designation criteria was implemented when assigning proposed shoreline designations.</p>	<p>Ecology: Compliant:</p> <p><i>The referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>New over-water structures:</p> <p>allowed only for water-dependent uses, public access, or ecological restoration. WAC 173-26-211(5)(c)(ii)(A) limited to the minimum necessary to support the structure's intended use. WAC 173-26-211(5)(c)(ii)(B)</p>	<p>See the following sections in Attachment 6: Section 83.170.</p> <p>Section 83.200.1</p> <p>Sections 83.270, 280, 290 contain dimensional standards.</p> <p>Other miscellaneous standards, such as Section 83.200.1, 83.220(4), etc.</p>	<p>City Comment: Generally, new or expanded over water structures are prohibited, with the exception of water-dependent structures, such as piers and docks, public access boardwalks, etc.</p> <p>Ecology: Compliant:</p> <p><i>The SMP sections referenced by the City appear consistent with these Guideline standards related to new overwater structures. See specific comments on regulations under "Piers/Docks" and "Boating Facilities".</i></p>

<p>Multiple use of over-water facilities encouraged. WAC 173-26-211(5)(c)(ii)(C)</p>	<p>Policy SMP - 3.8 (see Attachment 4)</p> <p>Section 83.270.1.b (see Attachment 6)</p> <p>See provisions addressing tour boat facilities, water taxi, etc. in Section 83.170 of Attachment 6, which require these uses to be co-located at marinas.</p>	<p>Ecology: Compliant:</p> <p>The referenced sections of the SMP appear consistent with these Guideline standards.</p>
<p>Location and design of all developments and uses required to:</p> <p>minimize interference with surface navigation, to consider impacts to public views, and to allow for the safe, unobstructed passage of fish and wildlife, particularly those species dependent on migration. WAC 173-26-211(5)(c)(ii)(D)</p> <p>prevent water quality degradation and alteration of natural hydrographic conditions. WAC 173-26-211(5)(c)(ii)(F)</p>	<p>Policy SMP - 2.6 (see Attachment 4)</p> <p>See the following sections in Attachment 6: Sections 83.260 through 350.</p> <p>Section 83.430 addresses measures to be taken to minimize impacts from in-water construction activity.</p> <p>Section 83.410.</p>	<p>Ecology: Compliant:</p> <p>The referenced sections of the SMP appear consistent with these Guideline standards.</p>
<p>Uses that adversely impact ecological functions of critical saltwater and freshwater habitats limited (except where necessary for other SMA objectives, and then only when their impacts are mitigated). WAC 173-26-211(5)(c)(ii)(E)</p>	<p>See the following sections in Attachment 6: Section 83.170 - Shoreline Environments, Permitted Uses and Activities Chart</p> <p>Section 83.360</p>	<p>Ecology: Compliant:</p> <p>The referenced sections of the SMP appear consistent with these Guideline standards.</p>
<p>High-intensity. WAC 173-26-211(5)(d)</p>		
<p>Designation criteria: Areas within incorporated municipalities, "UGAs," and "rural areas of more intense development" (see RCW 36.70A.070) that currently support or are planned for high-intensity water-dependent uses. WAC 173-26-211(5)(d)(iii)</p>	<p>Policy SMP - 2.5 of Attachment 4</p> <p>Section 83.140 of Attachment 6.</p> <p>Attachment 12 contains an analysis of how this designation criteria was implemented when assigning proposed shoreline designations.</p>	<p>Termed "Urban Mixed" in SMP documents.</p> <p>Ecology: Compliant:</p> <p>The referenced sections appear consistent with these Guideline standards.</p>
<p>Priority given first to water-dependent uses, then to water-related and water-enjoyment uses. New non-water oriented uses prohibited except as part of mixed use developments, or where they do not conflict with or limit opportunities for water oriented uses or where there is no direct access to the shoreline. WAC 173-26-211(5)(d)(ii)(A)</p>	<p>Policy SMP - 2.5 of Attachment 4.</p> <p>Section 83.170 - Shoreline Environments, Permitted Uses and Activities Chart (see Attachment 6)</p>	<p>Ecology: Compliant:</p> <p>The referenced sections of the SMP appear consistent with these Guideline standards.</p>

<p>Full use of existing urban areas required before expansion of intensive development allowed. WAC 173-26-211(5)(d)(ii)(B)</p>	<p>Attachment 5 contains the Shoreline Environment Designation maps illustrating proposed shoreline environments</p>	<p><i>The referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>New development does not cause net loss of shoreline ecological functions. Environmental cleanup and restoration of the shoreline to comply with relevant state and federal laws assured. WAC 173-26-211(5)(d)(ii)(C)</p>	<p>See the following sections in Attachment 6: Section 83.360.</p> <p>Section 83.370.</p> <p>Section 83.480.</p> <p>Sections 83.210.1, 3, 4 and 83.490 include provisions addressing proper storage and cleanup of hazardous materials.</p> <p>Policy SMP - 15.3 (see Attachment 4)</p>	<p><i>Ecology: Compliant:</i></p> <p><i>The referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>Visual and physical public access required where feasible. Sign control regulations, appropriate development siting, screening and architectural standards, and maintenance of natural vegetative buffers to achieve aesthetic objectives. WAC 173-26-211(5)(d)(ii)(D) and (E)</p>	<p>See the following sections in Attachment 6: Section 83.30, 400, 410, 420, 440, 450, and 460.</p>	<p><i>Ecology: Compliant:</i></p> <p><i>The referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>Urban conservancy. WAC 173-26-211(5)(e)</p>		
<p>Designation criteria: Areas within incorporated municipalities, UGAs, and rural areas of more intense development that are not suitable for water-dependent uses and that are either suitable for water-related or water-enjoyment uses, are flood plains, have potential for ecological restoration, retain ecological functions, or have potential for development that incorporates ecological restoration. WAC 173-26-211(5)(e)(iii)</p>	<p>Policy SMP - 2.2 (see Attachment 4).</p> <p>Section 83.110 (see Attachment 6).</p> <p>Attachment 12 contains an analysis of how this designation criteria was implemented when assigning proposed shoreline designations.</p>	<p><i>Ecology: Compliant:</i></p> <p><i>The referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>Allowed uses are primarily those that preserve natural character of area, promote preservation of open space, floodplain or sensitive lands, or appropriate restoration. WAC 173-26-211(5)(e)(ii)(A)</p> <p>Priority given to water-oriented uses over non-water oriented uses. For shoreline areas adjacent to commercially navigable waters, water-dependent uses given highest priority. WAC 173-26-211(5)(e)(ii)(D)</p> <p>For SMPs that allow mining, see WAC 173-26-241(3)(h).</p>	<p>Policy SMP - 2.2 (see Attachment 4)</p> <p>Section 83.170 - Shoreline Environments, Permitted Uses and Activities Chart (see Attachment 6).</p>	<p><i>Ecology: Compliant:</i></p> <p><i>The Management Policies appear consistent with the uses allowed within this shoreline environment.</i></p>
<p>Standards for shoreline stabilization measures, vegetation conservation, water quality, and shoreline modifications that ensure new development does not result in a net loss of shoreline ecological functions or degrade other shoreline values. WAC 173-26-211(5)(e)(ii)(B)</p>	<p>See the following sections in Attachment 6: Section 83.300, 400, 480, and 83.260-350.</p>	<p><i>Ecology: Compliant:</i></p> <p><i>Ecology has provided the City with detailed comments related to shoreline stabilization suggesting some clarifications to the draft SMP, which is generally compliant with these Guideline requirements.</i></p>

<p>Public access and recreation required where feasible and ecological impacts are mitigated. WAC 173-26-211(5)(e)(ii)(C)</p>	<p>See the following sections in Attachment 6: Section 83.170 - Shoreline Environments, Permitted Uses and Activities Chart (see use listings for public access boardwalk, public access facility, etc.)</p> <p>Section 83.420.</p>	<p>Ecology: Compliant:</p> <p><i>The referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>Shoreline residential. WAC 173-26-211(5)(f)</p>		
<p>Designation criteria: Areas within incorporated municipalities, Urban Growth Areas (UGAs), "rural areas of more intense development," and "master planned resorts" (see RCW 36.70A.360) that are predominantly residential development or planned and platted for residential development. WAC 173-26-211(5)(f)(iii)</p>	<p>Policy SMP - 2.3 and 2.4 (see Attachment 4).</p> <p>Section 83.120 and 130 (see Attachment 6).</p> <p>Attachment 12 contains an analysis of how this designation criteria was implemented when assigning proposed shoreline designations.</p>	<p>Two residential designations provided: Residential - L and Residential - M/H</p> <p>Ecology: Compliant:</p> <p><i>The City has the option to create sub-residential designations based on distinguishing characteristics between these two areas. Therefore the referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>Standards for density or minimum frontage width, setbacks, buffers, shoreline stabilization, critical areas protection, and water quality protection assure no net loss of ecological function. WAC 173-26-211(5)(f)(ii)(A)</p>	<p>See the following sections in Attachment 6: Sections 83.180, 300, and 490-530.</p> <p>Section 83.360.</p>	<p>Ecology: Compliant:</p> <p><i>The referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>Multifamily and multi-lot residential and recreational developments provide public access and joint use for community recreational facilities. WAC 173-26-211(5)(f)(ii) (B)</p>	<p>See the following sections in Attachment 6: Section 83.420. Section 83.280.</p>	<p>Ecology: Compliant:</p> <p><i>Ecology has provided the City with recommendations to revise this section to clarify the appropriate application of public access requirements to multi-family development.</i></p>
<p>Access, utilities, and public services required to be available and adequate to serve existing needs and/or planned future development. WAC 173-26-211(5)(f)(ii)(C)</p>	<p>Policy SMP - 2.3 2.4 (see Attachment 4).</p>	<p>Ecology: Compliant:</p> <p><i>The referenced sections of the SMP appear consistent with these Guideline standards.</i></p>
<p>Commercial development limited to water-oriented uses. WAC 173-26-211(5)(f)(ii)(D)</p>	<p>Section 83.170 - Shoreline Environments, Permitted Uses and Activities Chart (see Attachment 6).</p>	<p>One exception: Draft SMP allows retail use located on east side of Lake Washington Blvd, between NE 60th Street and 7th Ave S, where properties are only partially located within shoreline jurisdiction in order to ensure consistency with adopted zoning regulations for this area.</p> <p>Ecology: Compliant:</p>

GENERAL POLICIES AND REGULATIONS		
Archaeological and Historical Resources. WAC 173-26-221(1)		
Developers and property owners required to stop work and notify the local government, state office of archaeology and historic preservation and affected Indian tribes if archaeological resources are uncovered during excavation. WAC 173-26-221(1)(c)(i)	Historic, cultural, scientific, and education elements are addressed in Goal 27 and its related policies (see Attachment 4). Section 83.540 (see Attachment 6).	Ecology: Compliant: <i>Section 83.540, standard 2(b) appears consistent with this Guideline requirement.</i>
Permits issued in areas documented to contain archaeological resources require site inspection or evaluation by a professional archaeologist in coordination with affected Indian tribes WAC 173-26-221(1)(c)(ii)	Section 83.540 (see Attachment 6).	Ecology: Compliant: <i>Section 83.540, standard 2(a) appears consistent with this Guideline requirement.</i>
Critical areas. WAC 173-26-221(2)		
<p>Policies and regulations for critical areas (designated under GMA) located within shorelines of the state: (i) are consistent with SMP guidelines, and (ii) provide a level of protection to critical areas within the shoreline area that is at least equal to that provided by the local government's existing critical area regulations adopted pursuant to the GMA for comparable areas other than shorelines. WAC 173-26-221(2)(a) and (c).</p> <p>Planning objectives are for protection and restoration of degraded ecological functions and ecosystem-wide processes. Regulatory provisions protect existing ecological functions and ecosystem-wide processes. WAC 173-26-221(2)(b)(iv)</p> <p>Critical area provisions promote human uses and values, such as public access and aesthetic values, provided they do not significantly adversely impact ecological functions. WAC 173-26-221(2)(b)(v)</p>	<p>Policies addressing critical areas are contained in Goal 13 and its related policies (see Attachment 4).</p> <p>See the following sections in Attachment 6: Sections 83.490 through 530.</p> <p>Section 83.500.12.</p>	<p>Ecology: (Generally) Compliant: <i>Reference previous comments to the City specific to wetlands. For Streams, Geologic Hazardous Areas and Flood areas see specific Ecology discussion under individual Critical Areas.</i></p> <p><i>All of the Critical Areas sections provide "Reasonable Use Exemptions", which is not consistent with the SMP Guidelines. Generally these proposals are reviewed under a shoreline variance.</i></p> <p><u><i>Section 83.500.6 (Permit Process) provides administrative flexibility to vary buffer widths up to 25% before requiring a shoreline Variance. However, all Reasonable Use determinations are exempted from a variance, which is not consistent with the Guidelines.</i></u></p> <p>Discussion/Suggestion:</p> <p><i>The City have a few options to consider in relation to the inconsistency between the Guideline requirement for a variance and preserving the Reasonable Use Exemption for constrained properties:</i></p> <ul style="list-style-type: none"> <i>Option 1: Require a shoreline variance for any departure from SMP dimensional standards, but also include the City's Reasonable Use standards as additional review criteria under a variance review</i> <i>Option 2: Provide more specific geographic distinction of specific areas where the Reasonable Use Exemption would apply. Therefore,</i>

		<p><i>limiting the scope of the exemption to a defined number of lots for which build-out potential then needs to be considered within the Cumulative Impact Assessment, and shown to maintain No Net Loss of Ecological Function.</i></p>
<p>If SMP includes optional expansion of jurisdiction: Clear description of the inclusion of any land necessary for buffers of critical areas that occur within shorelines of the state, accurately depicting new SMP jurisdiction consistent with RCW 90.58.030(2)(f)(ii) and WAC 173-26-221(2)(a).</p>	<p>Not applicable.</p>	<p>City Comment: SMP does not include optional expansion of jurisdiction to critical area buffers.</p> <p>Ecology: Compliant:</p> <p><i>The City has clearly stated within section 83.500.1 that they do <u>not</u> intend to expand shoreline jurisdiction to the upland extent of critical area buffers.</i></p>
<p>Wetlands. WAC 173-26-221(2)(c)(i)</p>		
<p>Wetlands definitions are consistent with WAC 173-22.</p>	<p>Section 83.80.115 (see Attachment 6).</p>	<p>Ecology: Compliant</p> <p><i>The referenced provision appears consistent with previous comments from Ecology to the City in letter dated July 8, 2008.</i></p>
<p>Provisions requiring wetlands delineation method are consistent with WAC 173-22-035.</p>	<p>Section 83.500.2 (see Attachment 6).</p>	<p>Ecology: Compliant</p> <p><i>The referenced provision appears consistent with previous comments from Ecology to the City in letter dated July 8, 2008.</i></p>
<p>Regulations address all uses and activities listed in WAC 173-26-221(2)(c)(i)(A) to achieve no net loss of wetland area and functions including lost time when the wetland does not perform the function. [WAC 173-26-221(2)(c)(i)(A) + (C)]</p>	<p>See the following sections in Attachment 6: Section 83.500.4, 6, 7, 8, 9, 10, 11, and 12.</p>	<p>Ecology: Compliant</p> <p><i>The referenced provision appears consistent with previous comments from Ecology to the City in letter dated July 8, 2008.</i></p>
<p>Wetlands rating or categorization system is based on rarity, irreplaceability, or sensitivity to disturbance of a wetland and the functions the wetland provides. Use Ecology Rating system or regionally specific, scientifically based method. WAC 173-26-221(2)(c)(i)(B)]</p>	<p>Section 83.500.3 (see Attachment 6).</p>	<p>Ecology: Compliant</p> <p><i>The referenced provision appears consistent with previous comments from Ecology to the City in letter dated July 8, 2008.</i></p>
<p>Buffer requirements are adequate to ensure wetland functions are protected and maintained in the long-term, taking into account ecological functions of the wetland, characteristics of the buffer, and potential impacts associated with adjacent land uses. WAC 173-26-221(2)(c)(i)(B)</p>	<p>Section 83.500.4 (see Attachment 6).</p>	<p>City Comment: The wetland requirements incorporate the buffers requirements that King County has adopted to regulate wetlands within their Urban Growth Area (UGA).</p> <p>Ecology: Compliant</p> <p><i>The referenced provision appears consistent with previous comments from Ecology to the City in letter dated July 8, 2008.</i></p>
<p>Wetland mitigation requirements are consistent with WAC 173-26-201(2)(e) and which are based on the wetland rating. WAC 173-26-221(2)(c)(i)(E) and (F)</p>	<p>Section 83.500.8 (see Attachment 6).</p>	<p>Ecology: Compliant</p> <p><i>The referenced provision appears consistent with previous comments from Ecology to the City in letter dated July 8, 2008.</i></p>

<p>Compensatory mitigation allowed only after mitigation sequencing is applied and higher priority means of mitigation are determined to be infeasible.</p> <p>Compensatory mitigation requirements include (I) replacement ratios; (II) Performance standards for evaluating success; (III) long-term monitoring and reporting procedures; and (IV) long-term protection and management of compensatory mitigation sites. WAC 173-26-221(2)(c)(i)(F)</p> <p>Compensatory mitigation requirements are consistent with preference for "in-kind and nearby" replacement, and include requirement for watershed plan if off-site mitigation is proposed. WAC 173-173-26-201(2)(e)(B)</p>	<p>See the following sections in Attachment 6: Section 83.360</p> <p>Section 500.7 and 8.</p>	<p>City Comment: The standards for compensatory mitigation utilize the mitigation ratios specified in the Washington State Department of Ecology, U.S. Army Corps of Engineers Seattle District, and U.S. Environmental Protection Agency Region 10 guidance as contained in Wetland Mitigation in Washington State – Part 1: Agency Policies and Guidance.</p> <p>Ecology: Compliant</p> <p><i>The referenced provision appears consistent with previous comments from Ecology to the City in letter dated July 8, 2008.</i></p>
<p>Geologically Hazardous Areas. WAC 173-26-221(2)(c)(ii)</p>		
<p>Prohibition on new development (or creation of new lots) that would:</p> <ul style="list-style-type: none"> cause foreseeable risk from geological conditions during the life of the development prohibited. WAC 173-26-221(2)(c)(ii)(B) require structural shoreline stabilization over the life of the development. (Exceptions allowed where stabilization needed to protect allowed uses where no alternative locations are available and no net loss of ecological functions will result.) WAC 173-26-221(2)(c)(ii)(C) 	<p>Section 85.15.25 (see Attachment 9)</p> <p>Section 83.300.1.b (see Attachment 6).</p>	<p>Ecology: Compliant:</p> <p><i>The referenced SMP sections appear to satisfy this Guideline requirement.</i></p>
<p>New stabilization structures for existing primary residential structures allowed only where no alternatives (including relocation or reconstruction of existing structures), are feasible, and less expensive than the proposed stabilization measure, and then only if no net loss of ecological functions will result. WAC 173-26-221(2)(c)(ii)(D)</p>	<p>See the following sections in Attachment 6: Section 83.300.2.</p> <p>Section 83.360.</p>	<p>Ecology: Compliant:</p> <p><i>Independent of suggested edits to ensure consistency in reference to "Hard Structural Shoreline Stabilization" and "Structural Stabilization" explained in the Shoreline Stabilization section below, the referenced sections appear consistent with Guideline requirements.</i></p>
<p>Critical Saltwater Habitats. WAC 173-26-221(2)(c)(iii)</p>		
<p>Prohibition on new docks, bulkheads, bridges, fill, floats, jetties, utility crossings and other human-made structures that intrude into or over critical saltwater habitats, except where:</p> <ul style="list-style-type: none"> public need is clearly demonstrated; avoidance of impacts is not feasible or would result in unreasonable cost; the project include appropriate mitigation; and the project is consistent with resource protection and species recovery. <p>Private, non-commercial docks for individual residential or community use allowed if it is infeasible to avoid impacts by alternative alignment or location and the project results in no net loss of ecological functions. WAC 173-26-221(2)(c)(iii)(C)</p>	<p>Not applicable.</p>	
<p>Where inventory of critical saltwater habitat has not been done, all over water and near-shore developments in marine and estuarine waters require habitat assessment of site and adjacent beach sections. WAC 173-26-221(2)(c)(iii)(C)</p>	<p>Not applicable.</p>	

Critical Freshwater Habitats. WAC 173-26-221(2)(c)(iv)		
Requirements that ensure new development within stream channel, channel migration zone, wetlands, floodplain, hyporheic zone, does not cause a net loss of ecological functions. WAC 173-26-221(2)(c)(iv)(C)(I) and WAC 173-26-221(2)(c)(iv)(B)(II)	Section 83.500 and 510 (see Attachment 6). Section 21.56.100 (see Attachment 8)	City Comment: Kirkland's floodplain is consistent with its shoreline associated wetlands and, as a result, flood hazard reduction is generally accomplished through implementation of wetland and stream protections. Ecology: Discussion <i>See comment related to the Flood Hazard section with recommendations to narrow referenced ordinances or add additional SMP standards.</i>
Authorization of appropriate restoration projects is facilitated. WAC 173-26-221(2)(c)(iv)(C)(III)	Section 83.510.12 and 83.500.11 (see Attachment 6)	Ecology: Compliant: <i>The referenced SMP Standards appear to satisfy this Guideline requirement.</i>
Regulations protect hydrologic connections between water bodies, water courses, and associated wetlands. WAC 173-26-221(2)(c)(iv)(C)(IV)	Section 83.500 and 510 (see Attachment 6).	City Comment: Development generally required to locate outside of required buffers, unless specifically authorized under the specific provisions of these sections, which consider impacts to hydrology. Ecology: Compliant: <i>The referenced SMP Standards appear to satisfy this Guideline requirement.</i>
Flood Hazard Reduction. WAC 173-26-221(3)		
New development within the channel migration zone or floodway limited to uses and activities listed in WAC 173-26-221(3)(b) and (3)(c)(I)	Section 21.56.085 and 090 (see Attachment 8). Section 83.500 and 510 (see Attachment 6).	City Comment: Lake Washington does not have a floodplain, therefore the specific need for flood hazard reduction provisions along the Lake are limited. The City does have floodplains associated with several stream systems, which are coincident with the wetland areas located in Yarrow Bay and Forbes Creek wetlands, and therefore are a part of the SMP, as these wetland systems are shoreline associated. As a result, flood hazard reduction for these areas is generally accomplished through implementation of wetland and stream protections. Ecology: Discuss <i>Within the draft SMP, section 83.530 formally references all of chapter 21.56 (Flood Damage Prevention). This essentially brings the Flood Damage ordinance into as part of the updated SMP.</i> Suggestion: <ul style="list-style-type: none">• Discuss with the City the possibility to limit this

		reference to only those sections of chapter 21.56 (Flood Damage) to only those sections that are relevant to SMP Guideline requirements. For example, limiting development to areas outside of channel migration zone or floodway as required by the Guidelines could be satisfied by either referencing a specific standard or section within the City's flood damage ordinance or just creating a new standard just for the SMP.
New structural flood hazard reduction measures allowed only: where demonstrated to be necessary, and when non-structural methods are infeasible and mitigation is accomplished. landward of associated wetlands and buffer areas except where no alternative exists as documented in a geotechnical analysis. WAC 173-26-221(3)(c)(ii) & (iii)	Section 83.510.10, Section 83.500.7 and 9 (see Attachment 6). Section 21.56.085 through 095 (see Attachment 8).	Ecology: Same comment as above Suggestion: • As describe above, the City could limit reference to Chapter 21.56 (Flood Damage) by just referencing this specific section or repeating these standards within the SMP.
New publicly funded dikes or levees required to dedicate and improve public access (see exceptions). WAC 173-26-221(3)(c)(iv)	Section 83.420 (see Attachment 6)	Ecology: Compliant: The referenced SMP section appears consistent with this Guideline requirement.
Removal of gravel for flood control allowed only if biological and geomorphological study demonstrates a long-term benefit to flood hazard reduction, no net loss of ecological functions, and extraction is part of a comprehensive flood management solution. WAC 173-26-221(3)(c)(v)	See the following sections in Attachment 6: Section 83.320, Section 83.510.9 and Section 83.500.7.	Ecology: Compliant: The referenced sections appear consistent with these Guideline requirements.
Public Access. WAC 173-26-221(4)		
Policies and regulations protect and enhance both physical and visual access. WAC 173-26-221(4)(d)(i)	Goal 26 addresses visual and physical access. Other goals (e.g. Goal 7 and related policies) also address these issues (see Attachment 4). Section 83.410 and 420 (see Attachment 6).	Ecology: Compliant: The City has historically placed a strong emphasis on preserving shoreline public access. The draft SMP Goals/Policies & Regulations appear to continue to emphasize protection of both visual and physical access to shoreline areas consistent with SMP Guideline requirements.
Public entities are required to incorporate public access measures as part of each development project, unless access is incompatible with safety, security, or environmental protection. WAC 173-26-221(4)(d)(ii)	Section 83.420 (see Attachment 6).	Ecology: Compliant: Within section 83.420(5), the only exceptions to providing Public Access are granted to residential (L-environment), the Natural environment and detached Dwelling units. Other modifications to Public Access requirements are reviewed on a case-by-case basis utilizing criteria provided in section 83.420(6), intended to balance appropriate access with safety, security and environmental protection consistent with the Guidelines.
Non-water-dependent uses (including water-enjoyment,	Section 83.420 (see	Ecology: Compliant:

<p>water-related uses) and subdivisions of land into more than four parcels include standards for dedication and improvement of public access. WAC 173-26-221(4)(d)(iii)</p>	<p>Attachment 6).</p>	<p><i>The City appears to require Public Access for all shoreline development, except for uses listed under section 83.420(5) or modifications consistent with 83.420(6).</i></p>
<p>Maximum height limits, setbacks, and view corridors minimize impacts to existing views from public property or substantial numbers of residences. WAC 173-26-221(4)(d)(iv); RCW 90.58.320</p>	<p>See the following sections in Attachment 6: Section 83.410. Section 83.180 and 83.190.4.</p>	<p>Ecology: Compliant: <i>Section 83.410 provides specific view corridor standards, with exceptions listed in subsection 3a-c. Section 83.180 and 83.190.4 provide building height standards consistent with Guideline requirements and appropriate to preserve existing shoreline views.</i></p>

Vegetation Conservation (Clearing and Grading). WAC 173-26-221(5)

<p>Vegetation standards implement the principles in WAC 173-26-221(5)(b). Methods to do this may include setback or buffer requirements, clearing and grading standards, regulatory incentives, environment designation standards, or other master program provisions. WAC 173-26-221(5)(c)</p>	<p>See the following sections in Attachment 6: Sections 83.330, 400 and 490, 500, and 510, as well as incentives contained in Section 83.380.</p>	<p>Ecology: Compliant: <i>Section 83.330 provides standards to protect existing habitat consistent with setback/buffer requirements provided in 83.380. In addition to standard vegetation enhancement requirements to be applied to new development, the City's setback/buffer standards also provide development incentives to further enhance or create shoreline habitat consistent with SMP-Guideline goals.</i></p>
<p>Selective pruning of trees for safety and view protection is allowed and removal of noxious weeds is authorized. WAC 173-26-221(5)(c)</p>	<p>See the following sections in Attachment 6: Section 83.400.2 Section 83.350 and 480.</p>	<p>Ecology: Compliant: <i>The referenced SMP-standard appears consistent with this Guideline requirement, requiring a professional evaluation to acknowledge safety concern trees. Additional site-by-site flexibility can be considered, subject to review and approval by the Planning Official.</i></p>

Water Quality. WAC 173-26-221(6)

<p>Provisions protect against adverse impacts to water quality and storm water quantity and ensure mutual consistency between SMP and other regulations addressing water quality. WAC 173-26-221(6)</p>	<p>Section 83.480 (see Attachment 6).</p>	<p>Ecology: Compliant: <i>Section 83.480 appears consistent with this Guideline requirement. Subsections 1-3 provide a general goal to encourage appropriate water quality control and reduction of pollution risk. Development proposals are required to submit</i></p>
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SHORELINE MODIFICATIONS

<p>SMP: (a) allows structural shoreline modifications only where demonstrated to be necessary to support or protect an allowed primary structure or a legally existing shoreline use that is in danger of loss or substantial damage or are necessary for mitigation or enhancement; (b) limits shoreline modifications in number and extent; (c) allows only shoreline modifications that are appropriate to the specific type of shoreline and environmental conditions for which they are proposed;</p>	<p>GOAL SMP - 10 AND RELATED POLICIES (SEE ATTACHMENT 4) SECTION 83.170 (SEE ATTACHMENT 6) SECTIONS 83.260-350 (SEE ATTACHMENT 6)</p>	<p>Ecology: Non-Compliant: <i>Section 83.170 (use matrix) limits Shoreline Modifications through prohibiting both "hard" and "soft shoreline stabilization measures" within the Natural environment. 83.260 – 83.350 provide specific development standards pertaining</i></p>
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<p>(d) gives preference to those types of shoreline modifications that have a lesser impact on ecological functions. Policies promote "soft" over "hard" shoreline modification measures</p> <p>(f) incorporates all feasible measures to protect ecological shoreline functions and ecosystem-wide processes as modifications occur;</p> <p>(g) requires mitigation sequencing. WAC 173-26-231(2); WAC 173-26-231(3)(a)(ii) and (iii);</p>	<p>SECTION 83.360 (SEE ATTACHMENT 6)</p>	<p>to the following modifications: <i>Piers/Docks (83.260-.280), Marinas (83.290), Shoreline Stabilization (83.300), Breakwaters/Jetties (83.310), Dredging (83.320), Land Surface Modification (83.330), Landfill (83.340), and Shoreline Habitat Enhancement (83.350)</i>. All of these specific standards are further analyzed for Guideline compliance within proceeding sections of this checklist.</p> <p>83.360 provide No Net Loss and Mitigation Sequencing standards also applicable to future Shoreline Modifications.</p>
<p>Definition: structural and nonstructural methods to address erosion impacts to property and dwellings, businesses, or structures caused by natural processes, such as current, flood, tides, wind, or wave action. WAC 173-26-231(3)(a)(i)</p> <p>Definition of new stabilization measures include enlargement of existing structures. WAC 173-26-231(3)(a)(iii)(C), last bullet; WAC 173-26-231(3)(a)(iii)(B)(i), 5th bullet</p>	<p>See the following sections in Attachment 6: Section 83.80.44, 89, and 95.</p> <p>Section 83.300.4.b.1</p>	<p>Ecology: Non-Compliant:</p> <p><i>(Compliant) As referenced by the City, section 83.300.4.b.1, provides specific thresholds to distinguish between: "enlargement", "repair" or "replacement". Consistent with the Guidelines, "replacement" proposals (not meeting the threshold of "minor repair") are required to be analyzed the same as new stabilization measures, requiring justification for "hard stabilization" to protect primary structures located further then 10' upland of OHWM.</i></p> <p><i>(Non-Compliant/Question) Further, within section 83.80, the City has provided specific definitions for: Shoreline Stabilization (89), Hard Structural Shoreline Stabilization (44), and Soft Shoreline Stabilization (95). A definition for "structural stabilization" does not appear within this section. However, section 83.300 consistently refers to "Structural Stabilization". It is not clear if this reference is intended to only refer to "Hard Structural Stabilization", or if it is also intended to include "Soft Shoreline Stabilization"?</i></p> <p><i>(Discuss) 83.300.9.K, requiring adjacent property owner consent when beach restoration results in a change in OHWM location thus changing shoreline jurisdiction. This standard could be perceived as a barrier to restoration project implementation – suggest incorporating recent legislative (HB2199) options to provide added flexibility to upland property owners that come into shoreline jurisdiction as a result of a restoration project.</i></p> <p>Requirement/Question:</p> <ul style="list-style-type: none"> • <i>(Suggestion) The first sentence</i>

		<p>of standard 1 (General), c. should be rewritten by deleting the word, "prevent", to make the sentence easier to understand.</p> <ul style="list-style-type: none"> (Requirement) Clarify the definition of "Structural Stabilization" used throughout the SMP. Is this the same as "Hard Structural Shoreline Stabilization" as defined in 83.80, or different? If different, a definition will need to be added to distinguish the two meanings.
<p>Shoreline Stabilization. WAC 173-26-231(3)(a)</p> <p>Standards setting forth circumstances under which shoreline alteration is permitted, and for the design and type of protective measures and devices. WAC 173-26-231(3)(a)(ii)</p>	<p>Section 83.300 (see Attachment 6).</p>	<p>Ecology: Non-Compliant:</p> <p>(Compliant) Within section 83.300,2, standards a. through c .describe when Shoreline Stabilization can be considered.</p> <p>(Non-Compliant) Same comment as above use of both "Structural/Non-Structural" and "Hard Structural Shoreline Stabilization/Soft Shoreline Stabilization" is not consistent and could add confusion to the distinction between these definitions or requirements of the SMP.</p> <p>(Question) 83.300.2 standards c. 1-3 appears to isolate exception to limits on Structural Stabilization. Specifically, c.2. is confusing in the reference to "In support of non-water-dependent development, including detached dwelling units when all the conditions below apply". Is this reference intended to include all upland (non-water-dependent) development? Further, "detached dwelling units" are not defined in 83.80. <u>It is not understood, how broad this exemption could be applied?</u> Could some claim their swimming pool, grass lawn, or utility shed is a "non-water-dependent development" and attempt to justify stabilization for protection?</p> <p>Required Change/Question:</p> <ul style="list-style-type: none"> (Non-Compliant) same comment as above, clarify definition of "Structural Stabilization" with existing definition of "Hard Shoreline Structural Stabilization". Also, a definition for "Non-structural Measures", should be clarified or distinguished from "Soft Shoreline Stabilization" as defined in 83.80.

		<ul style="list-style-type: none"> (Non-Compliant/Question) The existing reference "non-water-dependent development including detached dwelling units" in 83.300.2.c.2, may not be acceptable or consistent with the Guidelines, depending on applicability to shoreline features.
<p>New development (including newly created parcels) required to be designed and located to prevent the need for future shoreline stabilization, based upon geotechnical analysis.</p> <p>New development on steep slopes and bluffs required to be set back to prevent need for future shoreline stabilization during life of the project, based upon geotechnical analysis.</p> <p>New development that would require shoreline stabilization which causes significant impacts to adjacent or down-current properties and shoreline areas is prohibited. WAC 173-26-231(3)(a)(iii)(A)</p>	<p>Policy SMP - 10.8 (see Attachment 4)</p> <p>Section 83.250 and Section 83.300.1 (see Attachment 6)</p>	<p>Ecology: Compliant:</p> <p>83.250.1.b. and 83.300.1-11 are consistent with this Guideline requirement.</p>
<p>New structural stabilization measures are not allowed except when necessity is demonstrated. Specific requirements for <i>how to demonstrate need</i> are established for:</p> <p>(I) existing primary structures;</p> <p>(II) new non-water-dependent development including Single Family Residences;</p> <p>(III) water-dependent development; and</p> <p>(IV) ecological restoration/toxic clean-up remediation projects.</p> <p>WAC 173-26-231(3)(a)(iii)(B)</p>	<p>Policy SMP - 10.6-10.9 (see Attachment 4)</p> <p>Section 83.300.2 (see Attachment 6)</p>	<p>Ecology: Non-Compliant/Question</p> <p>(Same question as above) 83.300.2 standards c. 1-3 appears to isolate exception to limits on Structural Stabilization. Specifically, c.2. is confusing in the reference to "In support of non-water-dependent development, including detached dwelling units when all the conditions below apply". Is this reference intended to include all upland (non-water-dependent) development? Further, "detached dwelling units" are not defined in 83.80. It is not understood, how broad this exemption could be applied? Could some claim their swimming pool, grass lawn, or utility shed is a "non-water-dependent development" and attempt to justify stabilization for protection?</p> <p>Required Change/Question:</p> <ul style="list-style-type: none"> (Non-Compliant/Question) The existing reference "non-water-dependent development including detached dwelling units" in 83.300.2.c.2, may not be acceptable or consistent with the Guidelines, depending on applicability to shoreline features.
<p>Replacement of existing stabilization structures is based on demonstrated need. Waterward encroachment of replacement structure only allowed for residences occupied prior to January 1, 1992, or for soft shoreline stabilization measures that provide restoration of ecological functions. WAC 173-26-231(3)(a)(iii)(C)</p>	<p>Section 83.300.4.b.3) (see Attachment 6)</p>	<p>Ecology: Compliant:</p> <p>The City has developed clear thresholds to distinguish "minor repair" from "replacement, while also providing criteria for determining "demonstrated need" for shoreline stabilization.</p>
<p>Geotechnical reports prepared to demonstrate need include</p>	<p>Section 83.300.2.a (see</p>	<p>Ecology: Compliant:</p>

estimates of rate of erosion and urgency (damage within 3 years) and evaluate alternative solutions. WAC 173-26-231(3)(a)(iii)(D)	Attachment 6)	<i>The City's Geotechnical report criteria and submittal requirements appear consistent with this Guideline requirement.</i>
Shoreline stabilization structures are limited to the minimum size necessary. WAC 173-26-231(3)(a)(iii)(E)	Section 83.300.9 (see Attachment 6)	Ecology: Compliant: <i>The referenced Shoreline Stabilization standards appear consistent with this Guideline requirement.</i>
Public access required as part of publicly financed shoreline erosion control measures. WAC 173-26-231(3)(a)(iii)(E)	Section 83.420 (see Attachment 6).	Ecology: Compliant: <i>The referenced Shoreline Stabilization standards appear consistent with this Guideline requirement.</i>
Impacts to sediment transport required to be avoided or minimized. WAC 173-26-231(3)(a)(iii)(E)	Section 83.300. (see Attachment 6).	Ecology: Compliant: <i>The referenced Shoreline Stabilization standards appear consistent with this Guideline requirement.</i>
Piers and Docks. WAC 173-26-231(3)(b)		
<p>New piers and docks:</p> <p>allowed only for water-dependent uses or public access restricted to the minimum size necessary to serve a proposed water-dependent use.</p> <p>permitted only when specific need is demonstrated (except for docks accessory to single-family residences).</p> <p>Note: Docks associated with single family residences are defined as water dependent uses provided they are designed and intended as a facility for access to watercraft. WAC 173-26-231(3)(b)</p>	Section 83.270.1 (see Attachment 6) and Section 83.220.5 (for public access piers and boardwalks) (see Attachment 6).	<p>City Comment: Standards addressing piers and docks under WAC 1732-26-231(3)(b) predominately addressed under Section 83.270.</p> <p>In contrast, standards addressing boating facilities are addressed in Section 83.280 (addressing piers serving multifamily uses) and Section 83.290 (addressing piers operated for commercial or public purposes)</p> <p>Ecology: Compliant:</p> <p><i>Section 83.270 in reference to Pier/Docks associated with single-family residential uses, appears consistent with this Guideline requirement.</i></p> <p>Note: Comment recommending "multi-family" Pier/Dock standards are part of the "Boating Facility" section of the SMP.</p>
When permitted, new residential development of more than two dwellings required to provide joint use or community docks, rather than individual docks. WAC 173-26-231(3)(b)	Section 83.270.1 (see Attachment 6)	Ecology: Compliant: <i>Section 83.270.1.b (1-3) provides SMP standards that appear consistent with this Guideline Requirement.</i>
Design and construction of all piers and docks required to avoid, minimize and mitigate for impacts to ecological processes and functions and be constructed of approved materials. WAC 173-26-231(3)(b)	See the following sections in Attachment 6: Section 83.360 Section 83.270.4	Ecology: Compliant: <i>The City has done a good job balancing Pier/Dock redevelopment needs with protection of ecological functions through creating Pier/Dock development standards for new structures, minor repair (defined threshold), and replacement. These standards have been analyzed within the City's</i>

		<p><i>Cumulative Impact Assessment and should support no net loss of ecological functions over time.</i></p> <p><i>The City's proposed thresholds appear appropriate and justified to meet the no net loss standard.</i></p>
Fill. WAC 173-26-231(3)(c)		
Definition of "fill" consistent with WAC 173-26-020(14)	Section 83.80.45 (see Attachment 6).	<p>Ecology: Compliant:</p> <p><i>The definition within the SMP appears consistent with the Guideline definition.</i></p> <p>Suggestion:</p> <ul style="list-style-type: none"> • <i>Change section heading in table of contents for Section 83 from "Landfill" to "Fill".</i>
Location, design, and construction of all fills protect ecological processes and functions, including channel migration. WAC 173-26-231(3)(c)	See the following sections in Attachment 6: Section 83.340.	<p>Ecology: Compliant:</p> <p><i>The referenced section appears consistent with this Guideline requirement.</i></p>
Fill waterward of the OHWM allowed only by shoreline conditional use permit, for: <ul style="list-style-type: none"> water-dependent use; public access; cleanup and disposal of contaminated sediments as part of an interagency environmental clean-up plan; disposal of dredged material in accordance with DNR Dredged Material Management Program; expansion or alteration of transportation facilities of statewide significance currently located on the shoreline (if alternatives to fill are shown not feasible); mitigation action, environmental restoration, beach nourishment or enhancement project. WAC 173-26-231(3)(c) 	See the following sections in Attachment 6: Section 83.170 and 83.340.3.	<p>Ecology: Compliant:</p> <p><i>The referenced section appears consistent with this Guideline requirement. Allowing fill seaward of OHWM is an important restoration component necessary to support bulkhead removal and beach restoration.</i></p>
Breakwaters, Jetties, and Weirs. WAC 173-26-231(3)(d)		
Structures waterward of the ordinary high-water mark allowed only for water-dependent uses, public access, shoreline stabilization, or other specific public purpose. WAC 173-26-231(3)(d)	Section 83.310.1 (see Attachment 6)	<p>Ecology: Compliant:</p> <p><i>The City is proposing limited opportunity for Breakwaters/Jetties or Weirs as Conditional Uses within the Residential-M/H and Mixed-Use designation and only when associated with one of the SMA preferred uses, consistent with the Guidelines.</i></p>
Shoreline conditional use permit required for all structures except protection/restoration projects. WAC 173-26-231(3)(d)	Section 83.170 (see Attachment 6)	<p>Ecology: Compliant:</p> <p><i>Pursuant to the referenced section of the City's SMP, a Conditional Use Permit would be required for any Breakwaters/Jetties or Weirs within the Residential-M/H or Mixed-Use designation and only when associated with a SMA preferred use.</i></p>
Protection of critical areas and appropriate mitigation required. WAC 173-26-231(3)(d)	Section 83.310 (see Attachment 6)	<p>City Comment: Prohibited in Natural and Urban Conservancy</p>

		Environment Ecology: Compliant: <i>As referenced above and stated by the City, this use will be very limited by both designation and associated use outside of protected critical areas.</i>
Dunes Management. WAC 173-26-231(3)(e)		
Development setbacks from dunes prevent impacts to the natural, functional, ecological, and aesthetic qualities of the dunes. WAC 173-26-231(3)(e)	Not applicable	
Dune modifications allowed only when consistent with state and federal flood protection standards and result in no net loss of ecological processes and functions. WAC 173-26-231(3)(e)	Not applicable	
Dune modification to protect views of the water shall be allowed only on properties subdivided and developed prior to the adoption of the master program and where the view is completely obstructed for residences or water-enjoyment uses and where it can be demonstrated that the dunes did not obstruct views at the time of original occupancy. WAC 173-26-231(3)(e)	Not applicable	
Dredging and Dredge Material Disposal. WAC 173-26-231(3)(f)		
Dredging and dredge material disposal avoids or minimizes significant ecological impacts. Impacts which cannot be avoided are mitigated. WAC 173-26-231(3)(f)	See the following sections in Attachment 6: Section 83.320 Section 83.360	Ecology: Compliant: <i>The referenced section appears generally compliant with this Guideline requirement.</i>
New development siting and design avoids the need for new and maintenance dredging. WAC 173-26-231(3)(f)	Section 83.320.1 (see Attachment 6)	Ecology: Compliant: <i>Within section 83.320, standard 1 is consistent with this Guideline requirement.</i>
Dredging to establish, expand, relocate or reconfigure navigation channels allowed only where needed to accommodate existing navigational uses and then only when significant ecological impacts are minimized and when mitigation is provided. WAC 173-26-231(3)(f)	Section 83.320.2. (see Attachment 6)	Ecology: Compliant: <i>As referenced by the City, standard 2 is consistent with this Guideline requirement.</i>
Maintenance dredging of established navigation channels and basins restricted to maintaining previously dredged and/or existing authorized location, depth, and width. WAC 173-26-231(3)(f)	Section 83.320.2. (see Attachment 6)	Ecology: Compliant: <i>As referenced by the City, standard 2 is consistent with this Guideline requirement.</i>
Dredging for fill materials prohibited except for projects associated with MTCA or CERCLA habitat restoration, or any other significant restoration effort approved by a shoreline CUP. Placement of fill must be waterward of OHWM. WAC 173-26-231(3)(f)	Section 83.170. and Section 83.320.2 and 3. (see Attachment 6)	Ecology: Compliant: <i>As referenced by the City, standards 2 and 3 appear consistent with these Guideline requirements.</i>
Uses of dredge material that benefits shoreline resources are addressed. If applicable, addressed through implementation of regional interagency dredge material management plans or watershed plan. WAC 173-26-231(3)(f)	Section 83.320.2 (see Attachment 6)	Ecology: Compliant: <i>Consistent with the Guidelines, the City will only allow dredge materials to be deposited seaward of OHWM when it is proven the quality of the material meets state and federal standards and in support of a beach restoration project.</i>
Disposal within river channel migration zones discouraged,	Section 83.320.3 (see	City Comment: City streams are not located within SMA

<p>and in limited instances when allowed, require CUP. (Note: not intended to address discharge of dredge material into the flowing current of the river or in deep water within the channel where it does not substantially affect the geo-hydrologic character of the channel migration zone). WAC 173-26-231(3)(f)</p>	<p>Attachment 6)</p>	<p>jurisdiction, except for the portion of the stream within 200 feet of the OHWM. <i>Ecology: Not Applicable</i></p>
<p>Shoreline Habitat and Natural Systems Enhancement Projects. WAC 173-26-231(3)(g)</p>		
<p>Provisions that foster habitat and natural system enhancement projects, provided the primary purpose is restoration of the natural character and functions of the shoreline, and only when consistent with implementation of the restoration plan developed pursuant to WAC 173-26-201(2)(f)</p>	<p>See the following sections in Attachment 6: Section 83.350. Section 83.500.11 and 83.510.12.</p>	<p><i>Ecology: Compliant:</i> <i>As referenced by the City, section 83.350 defines the potential types of enhancement projects that could be done within shoreline areas, section 83.500.11 refers to Wetland enhancements, and section 83.510.12 refers to Stream Rehabilitations.</i></p>
<p>SPECIFIC SHORELINE USES</p>		
<p>Agriculture. WAC 173-26-241(3)(a)</p>		
<p>Use of agriculture related terms is consistent with the specific meanings provided in WAC 173-26-020. WAC 173-26-241(3)(a)(ii) and (iv)</p>	<p>Section 83.80.2.</p>	<p><u>City Comment:</u> Not permitted (see Section 83.170) <u>Ecology: Discuss:</u> <i>Even though the use matrix provided in section 83.170 lists Agriculture, Aquaculture, Forest Practices and Mining as prohibited, all uses that are listed in WAC 173-26-241(Agriculture, Aquaculture, Boating Facilities, Commercial, Forest Practice, Industry, In-Stream Structure, Recreation, Residential, Transportation, Utilities), should be defined and either prohibited or listed as conditional or permitted uses with appropriate development standards identified to satisfy the no net loss policy goal of the SMP.</i> <u>Suggestion:</u> <ul style="list-style-type: none"> The City should consider either, provide an additional section to section 83 listing all the prohibited uses including definitions for each use, or insert each individual SMP use (based on WAC 173-26-241), for which each use should be defined (consistent w/Guidelines) and either listed as prohibited, conditional or permitted with appropriate development standards. </p>
<p>Provisions address new agricultural activities, conversion of agricultural lands to other uses, and other development not meeting the definition of agricultural activities. Provisions assure that development in support of agricultural uses is: (A) consistent with the environment designation; and (B) located and designed to assure no net loss of ecological functions and not have a significant adverse impact on other shoreline resources and values. WAC 173-26-241(3)(a)(ii) & (v)</p>	<p>Not applicable.</p>	<p><u>City Comment:</u> Not permitted (see Section 83.170) <u>Ecology:</u> See comments above.</p>

<p>Shoreline substantial development permit is required for all agricultural development not specifically exempted by the provisions of RCW 90.58.030(3)(e)(iv)</p>	<p>Not applicable.</p>	<p><u>City Comment:</u> Not permitted (see Section 83.170)</p> <p><i>Ecology: See comments above.</i></p>
<p>Conversion of agricultural land to non-agricultural uses is consistent with the environment designation, and regulations applicable to the proposed use do not result in a net loss of ecological functions. WAC 173-26-241(3)(a)(vi)</p>	<p>Not applicable.</p>	<p><u>City Comment:</u> Not permitted (see Section 83.170)</p> <p><i>Ecology: See comments above.</i></p>
<p>Aquaculture. WAC 173-26-241(3)(b)</p>		
<p>Location and design requirements for aquaculture facilities avoid: loss of ecological functions, impacts to eelgrass and macroalgae, significant conflict with navigation and water-dependent uses, the spreading of disease, introduction of non-native species, or impacts to shoreline aesthetic qualities. Impacts to functions are mitigated. WAC 173-26-241(3)(b)</p>	<p>Not applicable.</p>	<p><u>City Comment:</u> Not permitted (see Section 83.170)</p> <p><i>Ecology: See comments above for other prohibited shoreline uses (i.e. Agriculture, Aquaculture, Forest Practices & Mining). All SMP Uses listed in WAC 173-26-241 should be defined within the SMP and then either prohibited or permitted with appropriate standards.</i></p>
<p>Boating Facilities. WAC 173-26-241(3)(c)</p>		
<p>Definition: Boating facility standards do not apply to docks serving four or fewer SFRs. WAC 173-26-241(3)(c)</p>	<p>Section 83.270 specifically addresses piers and docks serving single family residences (see Attachment 6)</p>	<p><u>City Comment:</u> Standards addressing boating facilities are addressed in Section 83.280 (addressing piers serving multifamily uses) and Section 83.290 (addressing piers operated for commercial or public purposes)</p> <p>Ecology: Non-Compliant:</p> <p><i>The City should clarify if section 83.290 (Marinas & Moorage Facilities...) are "Boating Facilities"?</i></p> <p><i>All of the uses listed in WAC 173-26-241 must be addressed within the updates SMP. Therefore, the City needs to define "Boating Facilities" and either prohibit or permit with appropriate development standards.</i></p> <p>Requirement/Suggestion:</p> <ul style="list-style-type: none"> <i>(Discuss) The City could define "Boating Facilities" as "Marinas & Moorage Facilities..." either within section 83.80 (Definitions) or 83.290.</i> <i>Add "multi-family" Pier/Dock standards to this section.</i>
<p>Boating facilities restricted to suitable locations. WAC 173-26-241(3)(c)(i)</p>	<p>See the following sections in Attachment 6: Section 83.280.5 and Section 83.290.2.</p>	<p>Ecology: Compliant:</p> <p><i>These referenced SMP sections appear consistent with this Guideline standard.</i></p>
<p>Provisions ensuring health, safety, and welfare requirements are met. WAC 173-26-241(3)(c)(ii)</p>	<p>See the following sections in Attachment 6: Section</p>	<p>Ecology: Compliant:</p> <p><i>These referenced SMP sections</i></p>

	83.280.4 and Section 83.290.4	appear consistent with this Guideline standard.
Provisions to avoid or mitigate aesthetic impacts. See WAC 173-26-241(3)(c)(iii)	See the following sections in Attachment 6: Section 83.280.4 and Section 83.290.4	Ecology: Compliant: These referenced SMP sections appear consistent with this Guideline standard.
Public access required in new boating facilities. WAC 173-26-241(3)(c)(iv)	Section 83.420 (see Attachment 6).	Ecology: Compliant: These referenced SMP sections appear consistent with this Guideline standard.
Impacts of live-aboard vessels are limited. WAC 173-26-241(3)(c)(v)	Section 83.200.1 (see Attachment 6)	Ecology: Compliant: The City clearly prohibits overwater residential use, including live-aboard vessels within the referenced SMP section.
Provisions assuring no net loss of ecological functions as a result of development of boating facilities while providing public recreational opportunities. WAC 173-26-241(3)(c)(vi)	See the following sections in Attachment 6: Section 83.280 and 290 Section 83.360	Ecology: Compliant: These referenced SMP sections appear consistent with this Guideline standard.
Navigation rights are protected. WAC 173-26-241(3)(c)(vii)	See the following sections in Attachment 6: Section 83.280.2 and 5 Section 83.290.2 and 5	Ecology: Compliant: These referenced SMP sections appear consistent with this Guideline standard.
Extended moorage on waters of the state without a lease or permission is restricted, and mitigation of impacts to navigation and access is required. WAC 173-26-241(3)(c)(viii)	Section 83.370 (see Attachment 6).	Ecology: Compliant: The referenced SMP section appears consistent with this Guideline standard.
Commercial Development. WAC 173-26-241(3)(d)		
Preference given first to water-dependent uses, then to water-oriented commercial uses. WAC 173-26-241(3)(d)	See the following sections in Attachment 6: Section 83.170 Section 83.30.5	Ecology: Non-Compliant: Other than prohibiting most (not all) non-water oriented commercial uses, <u>it is not clear how preference has been given to water-dependent commercial uses within section 83.170?</u> <u>Section 83.210 (Commercial Uses) also does not provide a clear preference for water-dependent uses.</u> Requirement/Suggestion: <ul style="list-style-type: none">• (Suggest) adding a "General" heading to section 83.210 (Commercial Uses) that provides a clear preference for protection and encouragement of water-dependent uses over non-water dependent uses.• Ecology can discuss with Staff other options.
Water-enjoyment and water-related commercial uses required to provide public access and ecological restoration where feasible and avoid impacts to existing navigation, recreation, and	See the following sections in Attachment 6: Section 83.420	Ecology: Compliant: These SMP referenced sections appear to satisfy this Guideline

public access. WAC 173-26-241(3)(d)	Section 83.400	requirement.
New non-water-oriented commercial uses prohibited unless they are part of a mixed-use project, navigation is severely limited, and the use provides a significant public benefit with respect to SMA objectives. WAC 173-26-241(3)(d)	Section 83.170 (see Attachment 6)	Ecology: Compliant: <i>Note: Footnote applied to all Non-water oriented uses allowed in the Urban Mixed Environment that they must be part of a Mixed-Use development containing a water-oriented use as the primary use of the site (Section 83.170).</i>
Non-water-dependent commercial uses over water prohibited except in existing structures, and where necessary to support water-dependent uses. WAC 173-26-241(3)(d)	Section 83.170 (see Attachment 6)	Ecology: Compliant: <i>The referenced section appears consistent with this Guideline standard.</i>
Forest Practices. WAC 173-26-241(3)(e)		
Forest practices not covered by the Forest Practices Act, especially Class IV-General forest practices involving conversions to non-forest use result in no net loss of ecological functions and avoid impacts to navigation, recreation and public access. WAC 173-26-241(3)(e)	Not applicable.	City Comment: Not permitted (see Section 83.170) Ecology: See comments above for other prohibited shoreline uses (i.e. Agriculture, Aquaculture, Forest Practices & Mining). All SMP Uses listed in WAC 173-26-241 should be defined within the SMP and then either prohibited or permitted with appropriate standards.
SMP limits removal of trees on shorelines of statewide significance (RCW 90.58.150). Exceptions to this standard require shorelines conditional use permit. WAC 173-26-241(3)(e)	Section 83.400 (see Attachment 6)	City Comment: Limits tree removal and requires replacement of trees at a 3:1 ratio. Ecology: See comments above.
Industry. WAC 173-26-241(3)(f)		
Preference given first to water-dependent uses, then to water-oriented industrial uses. WAC 173-26-241(3)(f)	Not applicable.	Not permitted (see Section 83.170)
Location, design, and construction of industrial uses and redevelopment required to assure no net loss of ecological functions. WAC 173-26-241(3)(f)	Not applicable.	Not permitted (see Section 83.170)
Industrial uses and redevelopment encouraged to locate where environmental cleanup and restoration can be accomplished. WAC 173-26-241(3)(f)	Not applicable.	Not permitted (see Section 83.170)
Public access required unless such a requirement would interfere with operations or create hazards to life or property. WAC 173-26-241(3)(f)	Not applicable.	Not permitted (see Section 83.170)
New non-water-oriented industrial uses prohibited unless they are part of a mixed-use project, navigation is severely limited, and the use provides a significant public benefit with respect to SMA objectives. WAC 173-26-241(3)(f)	Not applicable.	Not permitted (see Section 83.170)
In-Stream Structures. WAC 173-26-241(3)(g)		
Definition: structure is waterward of the ordinary high water mark and either causes or has the potential to cause water impoundment or the diversion, obstruction, or modification of water flow. WAC 173-26-241(3)(g)	Not applicable.	In-stream structures addressed through stream provisions contained in Section 83.510, which limit improvements within

		streams or their associated buffers. Note: Kirkland does not contain streams that are regulated under the SMA; as a result, these provisions would only apply to those portions of streams that are located within 200 feet of the ordinary high water mark.
In-stream structures protect and preserve ecosystem-wide processes, ecological functions, and cultural resources, including, fish and fish passage, wildlife and water resources, shoreline critical areas, hydrogeological processes, and natural scenic vistas. WAC 173-26-241(3)(g)	Not applicable.	See above.
Mining. WAC 173-26-241(3)(h)		
Policies and regulations for new mining projects: require design and operation to avoid and mitigate for adverse impacts during the course of mining and reclamation achieve no net loss of ecological functions based on required final reclamation give preference to proposals that create, restore or enhance habitat for priority species are coordinated with state Surface Mining Reclamation Act requirements. assure subsequent use of reclaimed sites is consistent with environment designation and SMP standards. See WAC 173-26-241(3)(h)(ii)(A) – (C)	Not applicable.	<u>City Comment:</u> Not permitted (see Section 83.170) <i>Ecology:</i> See comments above for other prohibited shoreline uses (i.e. Agriculture, Aquaculture, Forest Practices & Mining). All SMP Uses listed in WAC 173-26-241 should be defined within the SMP and then either prohibited or permitted with appropriate standards.
Mining waterward of OHWM is prohibited unless: (I) Removal of specified quantities of materials in specified locations will not adversely impact natural gravel transport; (II) The mining will not significantly impact priority species and the ecological functions upon which they depend; and (III) these determinations are integrated with relevant SEPA requirements. WAC 173-26-241(3)(h)(ii)(D)	Not applicable.	Not permitted (see Section 83.170) <i>Ecology:</i> See comments above.
Renewal, extension, or reauthorization of in-stream and gravel bar mining activities require review for compliance with these new guidelines requirements. WAC 173-26-241(3)(h)(ii)(D)(IV)	Not applicable.	Not permitted (see Section 83.170) <i>Ecology:</i> See comments above.
Mining within the Channel Migration Zone requires a shoreline conditional use permit. WAC 173-26-241(3)(h)(ii)(E)	Not applicable.	Not permitted (see Section 83.170) <i>Ecology:</i> See comments above.
Recreational Development. WAC 173-26-241(3)(i)		
Definition includes both commercial and public recreation developments. WAC 173-26-241(3)(i)	Section 83.170 (see Attachment 6)	<u>City Comment:</u> The specific recreational uses listed include both commercial and recreational developments. <i>Ecology: Compliant:</i> Section 83.220 (Recreational Use) provides multiple definitions related to both public and commercial recreational shoreline uses.
Priority given to recreational development for access to and use of the water. WAC 173-26-241(3)(i)	Section 83.170 (see Attachment 6)	<i>Ecology: Non-Compliant:</i> There does not appear to be an emphasis on water dependent

		<p>recreational uses within either section 83.170 or 83.220?</p> <p>Requirement/Suggestion:</p> <ul style="list-style-type: none"> The City should clarify compliance with this Guideline requirement or provide a "General" standard to section 83.220 stating an emphasis on recreational development that provides access to the water.
<p>Location, design and operation of facilities are consistent with purpose of environment designations in which they are allowed. WAC 173-26-241(3)(i)</p>	<p>Section 83.170 (see Attachment 6)</p>	<p>Ecology: Compliant:</p> <p>Both 83.170 (Use matrix by designation) and 83.220 provide appropriate location and design criteria consistent with this Guideline requirement.</p>
<p>Recreational development achieves no net loss of ecological processes and functions. WAC 173-26-241(3)(i)</p>	<p>See the following sections in Attachment 6: Section 83.170, 180, and 220</p> <p>Section 83.360.</p>	<p>Ecology: Compliant:</p> <p>Standard 9 within section 83.220, specifically references no net loss of ecological functions.</p>
<p>Residential Development. WAC 173-26-241(3)(j)</p>		
<p>Definition includes single-family residences, multifamily development, and the creation of new residential lots through land division. WAC 173-26-241(3)(j)</p>	<p>Section 83.170 (see Attachment 6)</p>	<p>City Comment: Residential uses noted are specifically identified in the use listing under residential uses.</p> <p>Ecology: Non-Compliant:</p> <p>Any Residential use allowed through the proposed SMP should be defined within the Master Program. Section 83.170 lists the following Residential Uses: Detached Dwelling Units, Accessory Dwelling Units, Detached, Attached or Stacked Dwelling Units, Houseboats, Assisted Living Facility, and Convalescent Center. With the exception of Houseboats, all of these Residential Uses are allowed in at least one SMP Designation, but are not defined within section 83.80 or 83.200. If allowed by the SMP, definitions will need to be added to ensure consistent evaluation of the variety of Residential Uses the City will be allowing.</p> <p>Section 83.80 defines "Appurtenance" as including those listed under WAC 173-14-040 as well as adding "tool sheds, greenhouses, swimming pools, spas, accessory dwelling units and other accessory structures common to a single family residence". WAC 173-27-040(2)(g) provides a more limited definition only referencing the following structures as "appurtenances": "...garage; deck;</p>

		<p>driveway, utilities, fences; installation of a septic tank and drainfield and grading which does not exceed two hundred fifty cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark"</p> <p>Requirement/Suggestion:</p> <ul style="list-style-type: none"> The City can choose to either define the specific Residential Uses in the SMP in either the Definitions (83.80) or Residential (83.200) section of the SMP. The existing definition of "Appurtenances" appears too broad, for which Ecology may not support exempt protection of all of the additional structures listed in the draft SMP.
<p>Single-family residences identified as a priority use only when developed in a manner consistent with control of pollution and prevention of damage to the natural environment. WAC 173-26-241(3)(j)</p>	<p>See the following sections in Attachment 6: Sections 83.180 and 200, as well as general regulations, such as water quality (83.480) and vegetation (83.400).</p>	<p>Ecology: Compliant:</p> <p>As referenced by the City, the combination of multiple section of the SMP are anticipated to provide adequate protection to shoreline ecological functions to off-set anticipated impacts to shoreline resources from future development at the scale allowed through the SMP.</p>
<p>No net loss of ecological functions assured with specific standards for setback of structures sufficient to avoid future stabilization, buffers, density, shoreline stabilization, and on-site sewage disposal. WAC 173-26-241(3)(j)</p>	<p>See the following sections in Attachment 6: Sections 83.180</p> <p>Section 83.400</p>	<p>Ecology: Compliant:</p> <p>As referenced by the City, dimensional development standards provided in section 83.180, combined with Vegetation Management standards listed in section 83.400 have been analyzed within the City's Cumulative Impact Assessment and shown to support no net loss of shoreline ecological functions through implementation of the Master Program.</p>
<p>New over-water residences and floating homes prohibited. Appropriate accommodation for existing floating or over-water homes. WAC 173-26-241(3)(j)</p>	<p>Section 83.200.1 (see Attachment 6).</p>	<p>Ecology: Compliant:</p> <p>The referenced standard within section 83.200 appears to satisfy this Guideline requirement.</p>
<p>New multiunit residential development (including subdivision of land for more than four parcels) required to provide community and/or public access in conformance to local public access plans. WAC 173-26-241(3)(j)</p>	<p>See the following sections in Attachment 6: Section 83.420 and 83.250.</p>	<p>Ecology: Non-Compliant</p> <p>Question:</p> <p>It is not clear if the existing SMP would require Public Access for any land-division or only land-divisions creating four or more new parcels? See email from Joe Burcar to Stacy Clauson dated 8/19/2009.</p>
<p>New (subdivided) lots required to be designed, configured and developed to:</p> <p>(i) Prevent the loss of ecological functions at full build-out;</p> <p>(ii) Prevent the need for new shoreline stabilization or flood</p>	<p>Section 83.250 (see Attachment 6).</p>	<p>Ecology: Compliant:</p> <p>The referenced sections appear to be consistent with this Guideline requirement related to future land-</p>

hazard reduction measures; and (iii) Be consistent with applicable SMP environment designations and standards. WAC 173-26-241(3)(j)		
Transportation Facilities. WAC 173-26-241(3)(k)		
Proposed transportation and parking facilities required to plan, locate, and design where routes will have the least possible adverse effect on unique or fragile shoreline features, will not result in a net loss of shoreline ecological functions or adversely impact existing or planned water dependent uses. WAC 173-26-241(3)(k)	See the following sections in Attachment 6: Section 83.230 and 83.360	Ecology: Compliant: <i>Both SMP sections referenced appear consistent with this Guideline requirement. 83.230 provide transportation specific standards encouraging consideration of location and design to minimize impacts to shoreline resources. 83.360 provides higher level no net loss of ecological function goals including mitigation sequencing framework to avoid, minimize and then mitigate potential impacts.</i>
Circulation system plans include systems for pedestrian, bicycle, and public transportation where appropriate. WAC 173-26-241(3)(k)	Section 83.230.5 (see Attachment 6)	Ecology: Compliant: <i>The referenced section of the SMP appears consistent with this Guideline requirement through references to public access, pedestrian and bicycle opportunities associated with future transportation uses.</i>
Parking allowed only as necessary to support an authorized shoreline use and which minimize environmental and visual impacts of parking facilities. WAC 173-26-241(3)(k)	Section 83.440 (see Attachment 6)	Ecology: Compliant: <i>As referenced the City has developed specific parking standards that have been incorporated into the SMP. Consistent with Guidelines; parking is prohibited within shoreline setback areas (except under standard 3.b.1.a), prohibited overwater and can only be allowed within shoreline jurisdiction (upland areas) if associated with an approved shoreline use.</i>
Utilities. WAC 173-26-241(3)(l)		
Design, location and maintenance of utilities required to assure no net loss of ecological functions. WAC 173-26-241(3)(l)	See the following sections in Attachment 6: Section 83.240 and 83.360.	Ecology: Compliant: <i>The referenced sections of the City's SMP appear consistent with this Guideline requirement.</i>
Utilities required to be located in existing rights-of-ways whenever possible. WAC 173-26-241(3)(l)	Section 83.240.1 (see Attachment 6)	Ecology: Compliant: <i>As referenced by the City, section 83.240.1 specifically requires co-location of utilities when possible.</i>
Utility production and processing facilities and transmission facilities required to be located outside of SMA jurisdiction , unless no other feasible option exists. WAC 173-26-241(3)(l)	See the following sections in Attachment 6: Section 83.170 and Section 23.240.1	Ecology: Compliant: <i>The referenced sections of the City's SMP appear consistent with this Guideline requirement.</i>

SMP ADMINISTRATIVE PROVISIONS		
The statement: "All proposed uses and development occurring within shoreline jurisdiction must conform to chapter 90.58 RCW, the Shoreline Management Act and this master program" whether or not a permit is required. WAC 173-26-191(2)(a)(iii)(A)	Section 141.40.2 of SMP (see Attachment 7)	Ecology: Compliant: <i>The referenced sections of the SMP appear consistent with this Guideline standard.</i>
Administrative provisions ensure permit procedures and enforcement are conducted in a manner consistent with relevant constitutional limitations on regulation of private property. WAC 173-26-186(5) and WAC 191(2)(a)(iii)(A)	Section 141.70.3 - Variances (see Attachment 7)	Ecology: Compliant: <i>The referenced sections of the SMP appear consistent with this Guideline standard.</i>
Identification of specific uses and development that require a shoreline conditional use permit (CUP). Standards for reviewing CUPs and variances conform to WAC 173-27. WAC 191(2)(a)(iii)(B) and WAC 173-26-241(2)(b)	Section 83.170 Shoreline Environments, Permitted Uses and Activities Chart (see Attachment 6) Section 141.70.2 and 3 contain standards for reviewing CUPs and variances, referring to the provisions contained in WAC 173-27-160 and WAC 173-27-170, respectively (see Attachment 7)	Ecology: Compliant: <i>The referenced sections of the City's SMP appear consistent with this Guideline requirement.</i>
Administrative, enforcement, and permit review procedures conform to the SMA and state rules (see RCW 90.58.140, 143, 210 and 220 and WAC 173-27). WAC 191(2)(a)(iii)(C), WAC 173-26-201(3)(d)(vi)	Chapter 141 (see Attachment 7)	Portions of WAC 173-27 adopted by reference Ecology: Compliant: <i>The referenced sections of the City's SMP appear consistent with this Guideline requirement.</i>
Mechanism for tracking, and periodically evaluating the cumulative effects of all project review actions in shoreline areas. WAC 173-26-191(2)(a)(iii)(D)	The City contains provisions to ensure that mitigation sequencing is used during individual project review under Section 83.360 (see Attachment 6). Mitigation sequencing prioritizes first avoiding impacts through project redesign of location, then minimization of impacts through utilization of Best Management Practices or conditioning of permit decisions. Finally, project mitigation can be developed to offset any unavoidable impacts from allowed or preferred shoreline uses.	City Comment: The Cumulative Impact Analysis prepared as part of the City's SMP update (see Attachment 11) indicates that anticipated cumulative impacts should not result in any net loss in shoreline ecological functions. Ecology: TBD – Ecology to review and provide the City with comment prior to Council Review of the SMP.

PC/HCC 9/09
 Ecology: Non-Compliant

<p>SMP definitions are consistent with all definitions in WAC 173-26-020, and other relevant WACs.</p>	<p>Section 83.80 Definitions (see Attachment 6)</p>	<p>Section 83.80 defines "Appurtenance" as including those listed under WAC 173-14-040 as well as adding "tool sheds, greenhouses, swimming pools, spas, accessory dwelling units and other accessory structures common to a single family residence". WAC 173-27-040(2)(g) provides a more limited definition only referencing the following structures as "appurtenances": "...garage; deck; driveway; utilities; fences; installation of a septic tank and drainfield and grading which does not exceed two hundred fifty cubic yards and which does not involve placement of fill in any wetland or waterward of the ordinary high water mark"</p> <p>Requirement:</p> <ul style="list-style-type: none"> The City's definition of "Appurtenances" appears too broad, for which Ecology would not support exempt protection (WAC 173-27-040(2)(c)) for all of the additional structures listed within this definition in the draft SMP.
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City of Kirkland Response to August 17, 2009 letter from Karen Walter of the Muckleshoot Indian Tribe Fisheries Division

The following provides a response to each of the numbered items provided in Ms. Walter's letter:

Concerning Shoreline Goals and Policies

1. Concerning Policy **SMP 2.6**, this section will be revised to address the comment.
2. Staff believes that no changes are needed to **SMP 3.7**. The management policies address general issues, and the inclusion of a specific use would not be consistent with this approach.
3. Staff believes that this concept is already addressed in the supporting text to **Policy SMP 3.7**.
4. Staff suggests the following language be added to **Policy SMP 6.1** to address this issue: Accessory uses such as garages, sheds, accessory dwelling units, and fences are common features that are normally applicable to residential uses located landward of the ordinary high water mark and outside of any critical area or critical area buffer should be permitted.
5. Staff believes that the supporting text to **Policy SMP 10.5** appropriately notes potential concerns with dredging activities and notes that these activities should be limited.
6. Staff recommends revising the supporting text to **Policy 11.3** as follows: In order to minimize aesthetic and habitat impacts, piers should: make use of non-reflective materials; minimize lighting facilities to that necessary to locate the pier at night; focus illumination downward to minimize glare; and ensure that lighting does not spillover onto the water surface.
7. Staff recommends revising the supporting text to **Policy 15.4** as follows:
...Pesticides also directly affect fish. Fish use their olfactory sense to find their way home. Garden chemicals that get into our lakes and streams may mask the smell fish use for homing. Scientists have found that pesticides also interfere with the ability of salmon to reproduce and avoid predators. Other effects include impaired reproduction, skeletal deformities, decreased swimming ability, and toxicity to salmon food sources.
8. Staff recommends adding the following text to policy **SMP 16.2**: Applicants are encouraged to contact the City and make removed trees available for City restoration projects.
9. Staff recommends adding the following text to policy **SMP 25.2**: Even with revegetation, planting standards may restrict the species that are replanted. As a result, existing functions may not be able to be fully restored. For this reason, utility corridors should be located outside of the shoreline jurisdiction, where possible.

Concerning Shoreline Regulations

10. As a matter of City procedures, the Muckleshoot Tribes is on the City's list of agencies to notify, and therefore would be notified as part of any public notice for shoreline substantial development permits, shoreline conditional use permits, or shoreline variances. Shoreline exemptions do not require public notice.
11. The use listing addressing Native American fisheries has been deleted from the table as requested. Also of note, according to RCW 90.58.350, nothing in the SMA affects treaties to which the United States is a party.
12. Dredging is only permitted under an SDP when associated with a restoration or enhancement project. Otherwise, dredging requires a Conditional Use Permit.
13. It should be noted that full restoration of shoreline ecological functions is not required by the SMA, but rather "no net loss of shoreline ecological functions". The SMA does not require undisturbed vegetated buffers. Rather, the SMA requires cities to balance "no net loss of shoreline ecological functions" with several other objectives, such as protection of property and navigation rights, provisions for public access and recreation, and preferential accommodation of single-family development and utilization by water-oriented uses.

Please note that the basis for the setback numbers proposed is an extensive analysis of existing built conditions within each Shoreline Environment, which is summarized in the Cumulative Impact Analysis. City staff feels the proposed SMP setbacks are appropriate for each Shoreline Environment designation and adequately accommodate preferred shoreline uses, while protecting public rights. Combined with new vegetation standards, staff has determined that these provisions meet no net loss of ecological functions. The Cumulative Impact Analysis concludes that no net loss of ecological functions is projected in the City of Kirkland's shorelines. Please see the Cumulative Impact Analysis component of the SMP for more details.

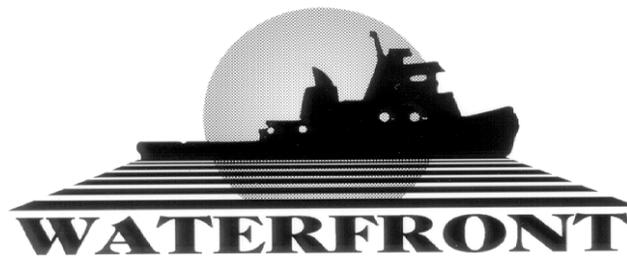
14. The proposed standards for the Natural Environment are consistent with the management policies established for the Natural Environment within WAC 173-26-211(5)(a). These management policies do not restrict all non-water dependent uses. Further, the structure height increase noted is only allowed in the following circumstances: In the Natural shoreline environment, the structure height of a detached dwelling unit may exceed the standard height limit by a maximum of 5 feet above average building elevation if a reduction in the footprint of the building is sufficient to lessen the impact on a sensitive area and sensitive area buffer. The City shall include in the written decision any conditions and restrictions that it determines are necessary to eliminate or minimize any undesirable effects of approving the exception.
15. Staff recommends the following change to Section 83.190.2.d(2)(a): The walkway in the corridor area shall be no more than 8 feet wide, and be constructed of a pervious walking surface, such as unit pavers, grid systems, pervious concrete, or, equivalent material approved by the Planning Official.
16. The allowances for decks and patios to extend into the shoreline setback are based upon an analysis of existing conditions, which shows that decks and patios commonly extend closer than the primary structure, in many cases more than

- the 10 feet proposed by this standard. Staff believes that sufficient limitations have been placed on the design and extent of the encroachment. Again, it should be reemphasized that no net loss is the benchmark required under the SMA. Given the existing conditions, these encroachments should not interfere with achievement of no net loss, as supported by the Cumulative Impact Analysis.
17. See response to item #16.
 18. See response to item #16. In addition, the specific allowed encroachment for outdoor seating is essential to implementation of other purposes of the Shoreline Management Act (e.g., public access).
 19. See response to item #16.
 20. Staff has made the requested change.
 21. The WDFW's Fish Passage Manual is addressed under Section 83.510.11, which addresses stream crossings.
 22. As noted in item #13 above, it should be noted that full restoration of shoreline ecological functions is not required by the SMA, but rather "no net loss of shoreline ecological functions". It should be noted that the standard proposed is based upon a review of approved projects within Lake Washington whose mitigation landscaping was designed by the City's environmental consultant, the Watershed Company. These projects have gone through an extensive consultation process.
 23. See response to item #22.
 24. In the case of replacement of an existing pier, staff has determined that mitigation landscaping is not needed to comply with the no net loss provisions.
 25. To mitigate for new impacts associated with additions to piers, staff has recommended that mitigation be focused on reduction of overwater coverage in the nearshore area.
 26. See response to item #22.
 27. See response to item #22.
 28. Major repairs require preparation of a demonstration of need, which includes an assessment of need for structural stabilization, an assessment of "feasibility of implementing options presented in Plate XX [the decision tree]," and an assessment of the feasibility of using soft structural shoreline stabilization measures. The decision tree identifies "gradient improvement" (defined as "installation of gravel/cobble substrate wedge for the purposes of improving nearshore gradients") as an option for all property types and circumstances. Further, the regulations state that "For all structural shoreline stabilization measures, design recommendations for minimizing impacts, ensuring that the replacement or repaired stabilization measure is designed, located, sized, and constructed to assure no net loss of ecological functions." The use of the decision tree and the basic principles of mitigation sequencing will result in

installation of gravel when possible and when necessary to mitigate for impacts of a particular project.

The draft regulations specify a maximum of 4:1 slope for the installed gravels, but further indicates that the "material shall be sized and placed to remain stable and accommodate alteration from wind- and boat-driven waves." Requiring a shallower slope would dramatically increase the amount of material needed and would result in more significant encroachments on adjacent properties to achieve that slope.

29. See response to item #22.
30. See response to item #22.
31. Breakwaters, jetties and groins would be subject to the mitigation sequencing provisions established in Section 83.360. Through this process, steps taken to avoid, minimize or mitigate for any remaining impacts would be evaluated.
32. Please see revised provisions.
33. In order to address impacts associated with tree removal, replanting is required as part of the proposed SMP to mitigate for the otherwise net loss of shoreline trees. The Guidelines say that vegetation conservation should be implemented "as necessary to assure no net loss of ecological functions and ecosystem-wide processes..." The proposed provisions respond to this requirement.
34. Staff suggests the following additional language: The applicant is encouraged to make significant trees removed under these provisions available for City restoration projects, as needed.
35. See response to #13.
36. See response to #13.



August 27, 2009

From: David Douglas, Waterfront Construction, Inc.
To: City of Kirkland
Attn: Paul Stewart
Stacy Clauson
Teresa Swan
Houghton Community Council
Kirkland Planning Commission Members
SMP Interested Parties of Record

To All Interested Parties,

I have reviewed the most recent SMP Draft for the City of Kirkland and the City has made good progress on its way to a final document. Some of the changes prompted by Staff, Council and Commission research and public input have contributed to a much improved document. While the draft SMP is better, there are still some areas of concern I have based on a working knowledge of the entire permit process and what is currently being approved at the state and federal regulatory levels. The approvals at the federal level, which in many cases can measurably exceed the Kirkland proposals for dimensional standards, are listed in the same document the WA Department of Ecology (DOE) is requiring local governments to use in order to meet its "no net loss" requirement; namely the RGP-3. DOE has made it clear that local governments can deviate and even exceed the standards in the RGP-3 (the Corps approves non-complying projects routinely) but only if they invested their own time and money to document that "no net loss" was still achieved. Given the current economic climate and lack of motivation there has not been a single local government step away from the status quo on behalf of their waterfront property owners to achieve this easily attainable goal. The result is that many local governments will be adopting dimensional standards similar to the RGP-3, a document that has only proven successful because the Corps has recognized and incorporated flexibility.

I have also received and reviewed the excellent work and communication by the Kirkland Lakeshore Association and their legal counsel. It appears their primary emphasis centers on upland issues and some references to shoreline stabilization so I will try not to replicate any of their concerns since that is for the most part beyond my experience level unless apparent. Dick Sandaas, waterfront property owner and chairman of the Shoreline Property Owners and Contractors Association has also provided highly valuable information on the science being used to carry the changes to local SMP's. The public for the most part has been heard but overpowered by the clamor of a relentless regulatory agency that insists on change regardless of the impact on individuals, the rights of property owners and the lack of convincing science.

While the City has reversed some of its earlier decisions I still believe they are holding on to some small but significant issues and areas that could prove problematic for both the City and property owners in the long term based on the design of typical new overwater structures and the opportunity to redevelop and replace existing structures that represent significant impacts at present. The primary goal for the City should focus less on total size or limiting the width of certain sections of a structure and more on decreasing the amount of overwater coverage in the most critical nearshore area. Placing overly restrictive standards on every element will create challenges and cause property owners to "hang on" to what they have which under nonconforming structure rules can complicate things even further.

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P: (206) 548-9800 F: (206) 548-1022

Everett Office
Waterfront Construction, Inc.
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The following comments/recommendations are provided for the City's consideration:

Draft SMP Section	Comment/Recommendation
83.270 1.b.	This is not supported by the WAC. A single-family residential pier is the exception to demonstrating that a shared or joint-use pier is not feasible. WAC 173-26 states, "Where new piers or docks are allowed, master programs should contain provisions to require new residential development of two or more dwellings to provide joint-use or community dock facilities, when feasible, rather than to allow individual docks for each residence. " This is directed toward planned communities and not at stand alone single family residential piers. Please remove this from the proposed SMP.
83.270 1.b.1)	The WAC does not support this position of making single family residential owners to get consent from adjacent property owners that they do not want a shard pier and while the City can adopt this as stricter than the minimum requirements in the WAC it will only cause strife among neighbors and disenfranchise property owners from local government. This requirement is overreaching and should be removed from the proposed SMP.
83.270 3.a.	If the City does not adopt an alternative process rather than pushing all piers that do not meet the overly restrictive dimensional standards into a Variance process it will prove problematic. The Variance process will deter most from replacing existing piers with more friendly designed piers. The new design standards will also declare a large percentage of existing piers as legally non-conforming which may mean they will need to come into compliance with existing standards. This will cause them to retain what they have, utilize self-help or hire an unqualified or renegade contractor to do unauthorized repairs or rebuilds. This is the wrong path for the City if they want property owner participation.
83.270 4.a (Chart)	<p>Maximum Length: How does a property owner demonstrate they will not have an adverse impact on navigation? This is arbitrary and should be removed.</p> <p>Maximum Width: One of the most popular designs contributing to decreased pier size and overwater coverage is a pier that extends straight out from the shoreline and whose most waterward section of the main walkway "flares" to 6 feet wide. This takes the place of an "ELL". The City should add a section below the "4 ft. for pier or dock" that states "up to a 26' long section of the main walkway may be 6 feet wide in the absence of an "ELL" on a pier that extends straight out from the shoreline" or something to this effect. This design has been well received by all agencies. I can provide drawings of a recent approval. For a joint use pier this section should be allowed up to 52' long since each owner is allowed a 26' section under the RGP-3.</p>
	Minimum Water Depth for ells and float decking attached to a pier: These requirements based on water depths will require many piers to extend further out than necessary and more than owners would otherwise apply for. This should be removed from the proposed SMP and left up to the state and federal regulators.
83.270 4.b (Chart)	<p>State and Federal Agency Approval and Maximum Width: While this essentially allows an applicant to submit to state (WDFW) and Federal (Army Corps) before submitting to the City and it appears to allow an applicant to have a new pier that exceeds some of the dimensional standards proposed by the City it is problematic based on how the permitting process works as outlined below:</p> <ol style="list-style-type: none"> 1) WDFW and the Army Corps often approve projects where a pier is wider than 4 feet and other sections are wider than 6 feet since they review a project based on many different factors and are more flexible than the SMP. Their review is based on mitigation including credit for removing an existing more impacting structure. If the applicant receives approval from WDFW and the Corps the City should accept it as approved and not require any changes. Essentially the City is calling this a deviation in error since it is overriding decisions by WDFW and the Army Corps. 2) A project cannot be forwarded to WDFW without first going to the City and having a SEPA Review and Determination completed. The SEPA Determination of Exemption is required for WDFW to have a complete application. 3) Applicants cannot directly submit to the Department of Ecology so they cannot receive approval. DOE only gets involved when a project requires a Variance or Conditional Use Permit. This means the City cannot forego their responsibility and will be required to take in and review a project and forward it with a recommendation to DOE through a Variance or Conditional Use. The approval criteria outlined in the WAC are specific and rarely are routine projects approved simply because they do not meet the dimensional standards in a SMP. The Variance process is supposed to be reserved for items that are no fault of the property owner and beyond their control. This is why the SMP must be flexible and less restrictive.

	<p>4) Having a project approved in this manner, if it were possible, will delay the permitting process substantially, even for projects with slight deviations from the SMP. There is no deviation process outlined in the SMP guidelines, only a Variance. This also will not achieve the streamlined process local governments are hoping for.</p> <p>The most effective and least controversial way to administer this would be for the City to accept a design that has been approved by the Army Corps and the Federal Services. Although this will still delay the overall process, property owners who propose a design that does not comply with the dimensional standards in the SMP will still have an option. The applicant can submit the project under a Deviated or Alternative SDP (the City should adopt this new type of permit) Process and it could be processed similar to a standard SDP. This would alleviate the Variance process.</p> <p>If the City does not adopt a new type of permit and chooses to take the project in as a Variance then the applicant and the City will have the approval of the Corps to support the applicant's alternate design. The Corps permit will have been reviewed by fisheries biologists at 3 agencies (Army Corps, USFWS and NMFS) who are more highly qualified than those with the Department of Ecology who typically review projects. All Corps permits render a "May Affect, Not Likely to Adversely Affect" listed species or critical habitat, which is the same determination that the RGP-3 renders. The manner in which DOE embraced and pressed the RGP-3 dimensional standards onto local governments without conducting adequate research into its usefulness or success is causing Kirkland and other local governments to adopt unreasonable and impractical standards.</p> <p>If an applicant applies to and receives a permit from the Army Corps, the City should support it through an alternative process even if it exceeds the proposed dimensional standards in the SMP. It is doubtful DOE would allow this even though it makes the most sense and benefits property owners, especially for the redevelopment or replacement of existing and more impacting structures.</p>
83.270 c.2 & 3	<p>If a project includes other state and federal permits, the City should accept the planting plan approved by WDFW and the Army Corps. Having a separate set of standards is onerous and unnecessary.</p>
83.270 c.4	<p>While it is encouraging the City will accept a planting plan approved by other state and federal agencies, it is important to note that at the time of the shoreline permitting process the Corps permit will not likely be received and WDFW cannot issue the HPA without the City's SEPA Determination. If a planting plan is being reviewed and will be approved through the federal permitting process can the applicant submit the proposed plan and provide the City with a copy of the state and federal permits when they are received of at the time of the Building Permit application?</p>
83.270 5.a & b (Charts)	<p>The City is taking projects that are currently exempt from Substantial Development under the WAC and requiring them to meet the new dimensional standards with a few exceptions. This will have a devastating impact on the repair and replacement of existing piers because they are essentially being declared as non conforming structures when under the WAC as long as there is no change in size, location or configuration they can be replaced in-kind. This is an area that the City has the best opportunity to make improvements to existing structures and under this requirement it will be missed.</p> <p>Total above water repairs to the entire surface of a pier are routine and minor work. This type of work is exempt from SDP and SEPA under the WAC, approved by the Corps under a NWP3 Maintenance permit, and receives streamlined approval from WDFW. This work has no impact on habitat and actually results in improvements because solid deck surfaces are typically replaced by a 100% grated surface to allow light penetration to the water below.</p> <p>The repair of a dock surface is not equivalent to a replacement of a pier and should not be treated as such. The in-kind replacement of an existing pier should not be equated to a new pier. The replacement of 50% or more of existing piles should not trigger new standards even with the more liberal dimensions listed in this section.</p>
83.270 5.b (Chart)	<p>Please review comments under 83.270 4.a</p>

83.270 8 (Chart)	<p>Location for Canopies: I think the second entry referencing canopies is an error since it does not make sense and will make access to watercraft beneath the canopy nearly impossible. The bottom of a canopy is typically located 6 to 7 feet above the dock surface and therefore 8.5 above the OHWL of Lake Washington. The wording in this section that the top of the canopy must not extend more than 4 ft. above an associated pier must be a mistake. The vertical distance from the top of a canopy to the bottom is around 3 feet so this will place the bottom of the canopy 1 foot above the dock surface. Which means people will need to squeeze under.</p> <p>Please review and revise. The City may want to consider, "Bottom of a boatlift canopy shall be elevated to the maximum extent feasible, and the bottom may be no less than 8 feet above the OHWM and the top no more than 14 feet above the OHWM. (This will typically place the bottom of the canopy at least 5.5 feet above the deck surface and the top of the canopy 11.5 feet above the deck surface) This places it at a useable height.</p>
	<p>Location for Moorage Piles or Buoys: The Corps has encountered problems in the RGP-3 by listing that mooring piles cannot be located more than 12 feet from the pier and the City will also make a mistake if they adopt this. The reason for a mooring buoy is to accommodate 4 point tie up for larger watercraft. Property owners with smaller craft typically use lifts. Most larger watercraft are between 12 and 18 feet wide so limiting pile location to no more than 12 feet from the pier is impractical and will trigger Variances in nearly every case. The Corps has never returned or commented on a project submitted under the RGP-3 where piles were located more than 12 feet from the pier. If the City insists on restricting how far mooring piles can be located from the side of a pier it should consider 24 feet since mooring piles eliminate the need for additional pier coverage to form a slip and the need for ecology blocks or Navy anchors installed on the bottom of the lake.</p> <p>I recommend the City eliminate the regulation restricting the length of moorage piles from the pier altogether.</p>
83.280	The same comments above apply to this section of the proposed SMP

Thank you for the opportunity to comment on the SMP Update process.

Sincerely,

David Douglas
Permit Coordinator
Waterfront Construction, Inc.

KIRKLAND LAKESHORE ASSOCIATION

A voluntary association dedicated to promoting the well-being of Kirkland's lakeshore.

August 31, 2009

Mr. Paul Stewart
City of Kirkland Planning Department
123 Fifth Ave
Kirkland WA 98033

cc's: Eric Shields, Stacy Clauson, Teresa Swann, Brent Carson, Esq.

Re: Response to Staff Draft Update Dated 8-24-09

Dear Paul:

This letter is in response to your invitation to submit additional comments from KLA on the subject of the Staff draft of the SMP Update dated 8-24-09. As you know, this draft contains revisions that Staff made in response to the KLA proposal submitted on August 9, 2009. In our letter to you of August 13, 2009, we expressed our appreciation for the opportunity to submit detailed comments and proposed alternatives, and for the meeting held on August 12, 2009 to discuss these matters with Staff. Since then, we have had the opportunity to review the changes to the Update that Staff made in response to the KLA proposal, other changes that Staff made in the 8-24-09 draft, as well as the Staff commentary as to KLA proposals that were rejected.

In summary, while we believe that the latest draft of the Update contains many improvements and we appreciate the Staff's role in this, we still view the Update as problematic. This is because a number of KLA's most substantive concerns were either not addressed, or were addressed differently than we proposed and in a manner that we believe fails to address the concerns of residential lakeshore property owners. KLA's position can be understood as follows:

- At the highest level, KLA supports the enactment of an Update that complies with the mandates of State law in a manner that minimizes the burdens placed on residential property owners.
- An important principle that runs through many of KLA's specific concerns (detailed below) is that residential property owners should be allowed to keep, maintain, and preserve their existing property investments. As supported by independent expert legal review, the standard of "no net loss" cannot be violated by preserving the status quo. Simply put, things cannot get worse by staying the same.

More specifically, the continuing concerns of KLA members may be summarized as follows:

1. Need For Setback Changes Not Supported. Based on independent expert legal review of the proposed Update, it has not been adequately established that dramatic changes to shoreline setbacks are necessary to comply with State law. Clearly, Staff and the paid consultants working on the SMP Update believe that setback expansions are necessary or desirable, but it is important for those whose responsibility it is to review and approve the Update to understand that there is another side to this view.
2. Non-Conformance Provisions Do Not Protect Owner's Investments. To their credit, Staff added a number of helpful provisions addressing what happens to people's homes that become "non-conforming" because of enactment of this Update. Unfortunately, these provisions do not go far enough. As explained by Staff, the intent of the provisions is to allow non-conforming structures to exist only for as long as owners

do not implement certain major changes, at which time the structures would need to be moved out of the expanded shoreline setback. KLA's view is that as long as owners are not making changes that increase the extent of the non-conformity, then owners should be able to keep what they have – which includes the right to renovate their homes.

3. Preservation of Existing Shoreline Protections Should Be Allowed. An issue of special concern to property owners is whether they will be allowed to fully repair and replace existing shoreline protections such as bulkheads. Staff has been willing to provide some clarifications that minor bulkhead repairs may be permitted, but the Update as currently drafted still provides an arduous regulatory process for major repairs (defined as failure of 50% or more). Again, KLA's view is that property owners should be able to preserve their investments by rebuilding their current shoreline protections in the event of even a catastrophic failure.
4. Unreasonable Costs Should Not Be Imposed. Shoreline property owners are also very concerned that burdens will be placed on them without regard to cost. KLA submitted several proposals to limit such costs, including a revision to the definition of what is deemed "feasible" that would have made costs one of the considerations. Staff rejected this and other provisions, and instead included sections stating that the City may (but need not) consider cost disproportionalities, and may (but need not) consider alternatives in such cases.
5. Tree Replacement Standards. One example of a provision exceeding the mandates of State law is the provision that requires shoreline property owners to replace trees that die from Acts of God. Not only are owners required to replace such trees at their sole expense, but they are required to purchase and have installed three trees for each one that dies. KLA's view is that Kirkland's existing tree ordinance that applies to all residents is sufficient, and lakeshore property owners should not be singled out in this manner.

In addition to these issues, there are a number of technical corrections and suggestions such as those requested from our attorney by Eric Shields. We would hope that we can continue to forward these to your attention to make further improvements to the Update, but because they are of a more clerical nature we will not describe them further here.

Again, we would like to express our appreciation for the opportunity to submit the comments, suggestions, and views of shoreline property owners. We respectfully request consideration of our continuing concerns, and we stand ready to assist in that process in whatever ways we can.

Sincerely,

KIRKLAND LAKESHORE ASSOCIATION



By Kevin Harrang, Member

Teresa Swan

From: Daved [Daved@waterfrontconstruction.com]
Sent: Tuesday, August 25, 2009 12:37 PM
To: Richard Sandaas; Teresa Swan
Cc: Paul Stewart
Subject: RE: Question on Regulations

Follow Up Flag: Follow up
Flag Status: Flagged

Hi All,

I recall the guidance from the City Attorney Mr. Sandaas is referencing.

I trust the in-kind repair or replacement of an existing pier within the same footprint would not trigger a planting plan. There is no additional coverage and it would be fully grated so there is an improvement without further mitigation required from the local government. Is this correct?

I also trust that because a native planting plan is required for all new piers (and bulkheads) by the Army Corps that the City will accept that plan and not override it or request additional changes. Is this correct?

Can Teresa or Paul explain Thursday's meeting? Am I right in reading that they will take written comments only and there will be no public comment time?

I am totally baffled by how complicated Kirkland has allowed the SMP process and document become. I have attended other meetings and reviewed several other proposed SMP sections which are straight forward, easy-to-read and will be just as effective. The complications can be attributed a large part to DOE and the Biological Consultant but the City and staff must also share a large part of the responsibility for not taking a stronger defensive posture in defense of their property owners and asking tough questions of DOE regarding the science (or lack thereof) driving this green machine against piers and bulkheads even though measurable improvements are unanticipated and unknown. I respect they have been placed in an awkward position but the SMP belongs to the City and not DOE.

Thanks,
Dave Douglas

From: Richard Sandaas [mailto:eride@msn.com]
Sent: Tuesday, August 25, 2009 10:36 AM
To: Teresa Swan
Cc: Paul Stewart
Subject: RE: Question on Regulations

Teresa:

Thanks for the response.

But it has raised another question:

I have reviewed the memorandum prepared by Mr. Rey of the City Attorney's office of March 5 which responded to the City's legal authority to require removal of bulkheads. In his conclusion he states that "a court...would likely find that requiring bulkhead removal is not warranted in connection with upland development activity." This finding was at a time when the draft regulations contained upland redevelopment triggers for bulkhead removal.

In looking at Section 83.5505.g there are similar triggers which pertain to requiring shoreline vegetation. These triggers are an increase of greater than 10% of floor area or cost which exceeds 50% of the replacement cost of all structures. It would seem that the same logic that came from Mr. Rey's finding on triggers for bulkhead removal would also apply here and I ask that he review this section pertaining to shoreline vegetation.

Thanks you.
Dick Sandaas

Subject: RE: Question on Regulations
Date: Thu, 20 Aug 2009 17:52:53 -0700
From: TSwan@ci.kirkland.wa.us
To: eride@msn.com
CC: PStewart@ci.kirkland.wa.us

Hello Dick:

In response to your question, vegetation is required with new construction of a home, pier or bulkhead or new use. For existing development, look at Section 83.5505.g for Nonconforming Shoreline Setback Vegetation for the 2 situations when vegetation is required.

Let me know if this answers your question. Thank you.

Teresa Swan
Senior Planner
(425) 587-3258 Fax (425) 587-3232
tswan@ci.kirkland.wa.us
City of Kirkland
123-5th Ave
Kirkland, WA 98033
Tuesdays-Thursday 8:45pm to 5pm

 Please don't print this e-mail unless you really need to. Reduce, Reuse, Recycle.

From: Richard Sandaas [mailto:eride@msn.com]
Sent: Tuesday, August 18, 2009 9:52 AM
To: Teresa Swan; Paul Stewart
Subject: FW: Question on Regulations

Hello:

I just learned that emails may have not been received last Friday due to technical problems. Here's one that I sent Friday, in case you didn't get it.

Dick S.

From: eride@msn.com
To: tswan@ci.kirkland.wa.us; pstewart@ci.kirkland.wa.us
Subject: Question on Regulations
Date: Fri, 14 Aug 2009 12:04:17 -0700

Teresa and Paul:

I have a question regarding Section 83.400, Tree Management and Vegetation in Shoreline Setback, Article 3, Required Vegetation in the Shoreline:
What is the trigger for compliance with this section?

Thanks
Dick Sandaas

Teresa Swan

From: Daved [Daved@waterfrontconstruction.com]
Sent: Wednesday, August 26, 2009 7:56 AM
To: Teresa Swan; Paul Stewart; CLAUSON Stacy A
Cc: Mark Nelson; Richard Sandaas
Subject: LAST DAY FOR SUBMITTAL OF COMMENTS ON DRAFT SMP

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Teresa, Stacy and Paul,

There are a few items I feel are vital that I comment on in the latest draft SMP and get them before the PC before the document is turned over to the CC. If a couple things are not addressed Variances will become routine instead of the exception. There are also some environmentally friendly designs we use that could trigger a Variance even though they are resulting less overwater coverage and are better than other layouts that would receive approval. This would be simply based on wording and interpretation in the draft.

I have been swamped with projects so I haven't had time to submit a final set of comments. What is the latest I can get some comments before the PC?

I also know there will be time for challenge and public comment in front of the CC but if these can be addressed prior to that I think it would be beneficial since the PC is the actual body doing the legwork and the CC depend heavily upon their recommendations. My comments are centered on piers because I have a feeling the bulkhead issues may be too far gone to tackle at the City level and will more than likely come through future legal action from individual property owners or groups.

I think this may happen across the region because the science simply does not proportionately support the aggressive steps DOE and local governments are taking.

Is the meeting tomorrow for written comments only with no public testimony before the PC?

Thank you,
Dave Douglas

cc: council
Dave
Marilyn
Eric
Paul
Teresa S.

RECEIVED

AUG 13 2009

August 13, 2009

Dear Kirkland City Council Member:
Kirkland City Hall
123 Fifth Avenue
Kirkland, WA 98033

CITY OF KIRKLAND
CITY MANAGER'S OFFICE

I am writing as a Lake Washington waterfront property owner (129 Lake Avenue West, Kirkland) who has lived at that site for 31 years. Over that time we have substantially remodeled an old 1920's cabin, and about ten years ago, we tore the whole mess down and built a new house. My apologies for the delay in writing to you, as my wife of 31 years passed away 2 ½ weeks ago at the home from breast cancer. Obviously it consumed my life for some months, and I was not able to provide input on the proposed Shoreline Master Program (SMP) which you engaged in creating.

Most of the properties on Lake Avenue West are very small – many are less than 100 feet deep, and most are approximately 60 feet wide. With 20 foot setbacks from the street, and 15 foot setbacks from the shore of Lake Washington and 15 foot side yard requirements, you can easily see that a lot 60 feet wide by 80 feet deep, becomes a patch 45 feet deep by 45 feet wide for construction purposes. Then with 50% lot coverage requirements, including hard surfaces, that lot would probably only support a house with a footprint of perhaps 1500 square feet. And most recently lots of this size along the shore of Lake Washington have been selling for \$3 million and more. On our block perhaps 50% of the houses have been rebuilt in the past 15 years, using the above parameters. Our 1999 home has 0-5 foot setback (replaced an existing structure) from Lake Washington for about 10% of its width, and a 15-18 foot setback for the remaining 90% of its width, and was built in conformity with all City of Kirkland building permit requirements in 1998.

To attempt to destroy our sea wall or not allow it to be rebuilt were it to fail, would be to cause our structure to be at extreme risk of failure. There simply is no room between the lake and our home to soften the shoreline, and that is the case for most of our neighbors, whose houses are all built since 1999, and were properly permitted by the City of Kirkland. To decide after the fact that the requirements were bad is one thing; to retrofit those requirements so as to endanger structures, and thus lives of people living within those structures it to put people and property at extreme risk. I am sure none of you on the council would like to see your home boundaries changed to put those homes and their foundations at risk, but what you are considering would do exactly that for those of us who have followed the rules and built very nice homes along the shore of Lake Washington. We followed the rules, and now you propose to put our houses and lives at risk as a result!

The examples you cite in various film strips, and in the pamphlet titled "Green Shorelines" are simply not applicable to many Kirkland shoreline properties. On Evergreen, Hunts and Yarrow points, properties are sometimes hundreds of feet deep, and softening shorelines is entirely possible. Our very shallow lots on Lake Avenue West, Fifth Avenue West, Holmes Point Drive and elsewhere simply do not lend themselves well to softening shorelines. Please come out and visit my property, have a cup of coffee or glass of wine, and take a look at the problem first hand. I think that would help you to understand the problem first hand. We want to protect the environment too, but not at the cost of losing our home, or our lives.

Thank you.

Sincerely yours,



Paul Berton Birkeland
129 Lake Avenue West
Kirkland, WA 98033
425-576-5551
birk129@hotmail.com

Dear Mr. Stewart,

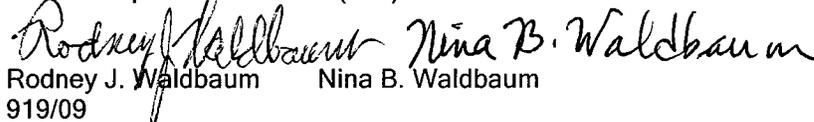
We reside in Unit 301 of Yarrow Shores, a 6-unit condo, located at 4437 Lake Washington Blvd. NE, Kirkland, WA 98033. We are most concerned by the prospect of the Kirkland Planning Commission proposing bulkhead removal as a condition to redevelopment of condos, homes or docks on the Lake Washington shoreline. We ask that the Planning Commission recommend that the City do no more than the minimum which the Shoreline Master Program requires. If we ever need to replace or repair our existing dock, or remodel the exterior of our condo building, we do not want to have to replace our existing bulkhead!

We respectfully submit that the Kirkland Planning Commission's time would be better spent undertaking steps to get rid of the milfoil along the Kirkland shoreline. Hunts Point has addressed this in a constructive manner, but I do not believe Kirkland has done so.

We are not members of the Kirkland Lakeshore Association, but we support its efforts on this matter.

Please share this email with all members of the Kirkland Planning Commission, and, if the matter goes to the Kirkland City Council, then to its members as well.

Our home phone number is (425) 242-0992.


Rodney J. Waldbaum Nina B. Waldbaum
919/09

Rodney J. Waldbaum

LeSourd & Patten, P.S.
600 University Street, Suite 2401
Seattle, Washington 98101-4121
(206) 624-1040 Fax: (206) 223-1099
Direct Line: (206) 357-5087
rwaldbaum@lesourd.com
www.lesourd.com

IRS rules require that certain standards be met when written tax advice is given by a practitioner, in order that a client might qualify for tax penalty protection. Any tax advice in this communication is not intended to be used, nor should you use it, for that purpose. If you want us to provide an opinion that may assist you in obtaining penalty protection, please let us know, as an additional written engagement letter with our firm is required.

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August 20, 2009

Kirkland Planning Commission
123 5th Avenue
Kirkland, WA 98033

Re: Shoreline Master Program Update – Rose Point Lane

Dear Planning Commissioners,

The properties along Rose Point Lane are unique in the City of Kirkland because they are located on a narrow peninsula, with Lake Washington on one side and the Juanita Bay Wetlands on the other. The convergence of the increased shoreline setbacks and the doubling of wetland buffers in the SMP update encumber these properties severely. As a result of the updated SMP, some lots will have virtually no buildable area at all. Fortunately, there is a solution which will allow these properties the buildable area they need and enhance the quality of the Juanita Bay Wetland buffer.

Rose Point Lane is in many respects one of the City's most redevelopment ready neighborhoods. There are ten houses on the street. Eight of the ten are more than 40 years old and six of the ten have assessed improvement values of \$1,000. This means that King County views the structures as a liability to the property and virtually unlivable in their current condition. Two other structures are assessed under \$65,000. The assessed land values on the lane are quite high with the lowest assessed value at \$1,936,000 and the median assessed value at \$2,570,000. This combination makes the lane ripe for redevelopment. Only the Juanita Bay Wetland buffer extending across Rose Point Lane and drastically reducing the buildable area of some lots will hold back redevelopment.

Redevelopment of Rose Point Lane under the SMP update is ecologically desirable and should be encouraged. The requirements for native plantings, increased shoreline setbacks, encouragement of soft shorelines and other items combined with unrelated, but dramatic, improvements in building energy efficiency mean that homes built under the new SMP will be significantly more environmentally friendly than the homes they replace. Therefore, the SMP should do all that it can to encourage redevelopment of the Rose Point Lane properties.

Methods for encouraging redevelopment while enhancing the ecological function of waterfront properties is demonstrated in the draft through the shoreline setback reduction mechanisms, the reduced front yard setbacks, increased height limit and other aspects of the update. However, the one area where redevelopment is nearly prevented from occurring is where shoreline setbacks and wetland buffers converge. While this combination affects relatively few properties in the City those that are affected can see the buildable area on their lot reduced to nearly nothing.

The buffer area west of Rose Point Lane is not making a meaningful contribution to the protection of the wetland. It is currently dominated by buildings, paving and ornamental plantings. It holds only two significant trees. Those two trees are on land recently redeveloped and consequently not likely to be removed as a result of redevelopment. The only portion of the buffer which contributes any meaningful ecological function to the wetland is that portion to the east of Rose Point Lane. Allowing homes to be placed closer to

Kirkland Planning Commission
August 20, 2009
Page 2 of 2

the wetland will not have any negative effect on the ecological function of the wetlands while the enhanced buffer east of the lane will provide meaningfully improved ecological function. It is that portion of the buffer where the wetlands enhancement belongs ecologically.

While a number of options are available in the code to rectify this situation one stands out as a solution that will give the property owners the buildable area they need and enhance the wetland buffer in a meaningful way. With minor revisions to the current language, allowance can be made for these properties to build to their standard front yard setbacks by locating buffer enhancement mitigation in the portion of the buffer between Rose Point Lane and the wetland itself.

In the current draft of the SMP update offsite mitigation is allowed as compensatory mitigation under 83.500.8.a when a wetland is to be modified. However, it does not allow for offsite mitigation when only a wetland buffer is to be modified. This is easily rectified by allowing off site mitigation for buffer enhancement done under 83.500.9.d.1.b. The 83.500.8.a requirement for placement within the same drainage basin could be maintained, or it could be strengthened to require enhancement of the specific buffer being modified. The land between Rose Point Lane and the Juanita Bay Wetland is City owned Juanita Bay Park, so it seems reasonable that arrangements can be made to allow enhancement within the park. This is the only location where enhancement would create meaningful improvement in the buffer as any mitigation done west of Rose Point Lane would have a negligible impact at best.

To make this truly a win-win situation the 25% limit on the depth of the buffer modification in 83.500.9.d.1.b needs to be removed in this case. Near the north end of Rose Point Lane more than 50% of the proposed new buffer occurs west of the lane. The 25% threshold would seem to be based on an uninterrupted buffer, not the bisected buffer which exists at Rose Point Lane.

Restoring the buildable area these properties need to make redevelopment economical and requiring enhancement of the wetland buffer as part of that redevelopment achieves a solution which benefits both the property owners and the community. This strategy is very much in keeping with the goals of the SMP as exemplified by the shoreline setback modification options which give flexibility to the property owners and enhance the nearshore environment.

Thank you for your consideration of this recommendation. If any members of the Planning Commission or City staff would like to discuss our suggestion further please do not hesitate to call us at (425) 828-0333 or email robertc@thielsen.com.

Sincerely,



Robert Connor
Thielsen Architects

Cc: Paul Stewart, Deputy Director of Planning
Teresa Swan, Senior Planner
Stacy Clauson, Contract Planner

Teresa Swan

From: Richard Sandaas [eride@msn.com]
Sent: Tuesday, September 01, 2009 10:46 AM
To: Teresa Swan
Cc: Paul Stewart; jobu461@ecy.wa.gov
Subject: RE: Question on Regulations

Hi Teresa:

I've been pondering your explanation for the triggers for shoreline vegetation and how they are tied to no net loss.

With respect to an improvement which is greater than 50% of the replacement value, it could be an extensive remodel project utilizing the existing footprint, and not be an expansion. Therefore there would be no increase in impervious surfaces, light, glare, and runoff. The construction impact would be temporary and it would be a real stretch to link it to no net loss. My point is that not all projects are extensive redevelopments and there should be a recognition of this in the regulations.

As for the greater than 10% increase in floor area trigger, there could be impacts as you mention. However they could be mitigated by means other than shoreline vegetation. One example would be to replace an existing driveway and parking area with pervious materials which would offset the increased impervious area caused by the home construction. This would have a true linkage with the impact rather than what I have long contended are the dubious environmental benefits (see my prior comments) of the shoreline vegetation.

And all of this raises a broader issue, and that is the inequity of targeting shoreline owners for all of the cumulative impacts on the lake. Everything taking place beyond the 200 foot zone is not being addressed. Look at all that is taking place incrementally upland in the Lake Washington watershed: road and freeway improvements, aka more pavement; increased densities driven by the GMA; and all those individually permitted activities and projects. All of this is impacting Lake Washington and, over time, will overwhelm the projected benefits of the regulations driven by the SMP update process. There **will be** a net loss. Regulations which require mitigation for these upland impacts, keyed to impacts on Lake Washington, should be developed in lockstep with the SMP updates so that a systematic approach is taken.

This is not just a Kirkland issue. It involves all of the jurisdictions on the lake and, of course, the Department of Ecology which should take responsibility for leadership. I ask that you raise this issue with the Planning Commission and the Houghton Community Council, your peers in the other jurisdictions, and DOE.

Sincerely
Dick Sandaas

Subject: RE: Question on Regulations
Date: Wed, 26 Aug 2009 17:34:25 -0700
From: TSwan@ci.kirkland.wa.us
To: eride@msn.com
CC: PStewart@ci.kirkland.wa.us

Hello Dick:

Thank you for your questions. This gives us an opportunity to clarify information.

There is probably not a strong nexus or legal justification for requiring the removal of a bulkhead (an accessory structure to a primary use) for mitigating the impact of expanding a primary structure. However, there is a nexus between riparian

vegetation as a mitigating measure for expanding a primary structure. With the expansion comes more light, glare, impervious surface, storm runoff and construction. In some cases, the expansion may be closer to the shoreline than the existing home.

Dept of Ecology will be looking for planting of shoreline riparian vegetation as mitigation for new construction, redevelopment and enlargements of structures in our SMP update. Existing vegetation may meet some or all of the requirement for shoreline vegetation.

Also, in our Cumulative Impact Analysis, we determined that we would meet the no net loss provision if riparian vegetation is provided for enlargement of primary structures. Without the vegetation, we would need to come up with some other type of mitigation to meet no net loss for impacts associated with expansion of uses.

Sincerely,

Teresa Swan
Teresa Swan
Senior Planner
(425) 587-3258 Fax (425) 587-3232
tswan@ci.kirkland.wa.us
City of Kirkland
123-5th Ave
Kirkland, WA 98033
Tuesdays-Thursday 8:45pm to 5pm



Please don't print this e-mail unless you really need to. Reduce, Reuse, Recycle.

From: Richard Sandaas [mailto:eride@msn.com]
Sent: Tuesday, August 25, 2009 10:36 AM
To: Teresa Swan
Cc: Paul Stewart
Subject: RE: Question on Regulations

Teresa:

Thanks for the response.

But it has raised another question:

I have reviewed the memorandum prepared by Mr. Rey of the City Attorney's office of March 5 which responded to the City's legal authority to require removal of bulkheads. In his conclusion he states that "a court...would likely find that requiring bulkhead removal is not warranted in connection with upland development activity." This finding was at a time when the draft regulations contained upland redevelopment triggers for bulkhead removal.

In looking at Section 83.5505.g there are similar triggers which pertain to requiring shoreline vegetation. These triggers are an increase of greater than 10% of floor area or cost which exceeds 50% of the replacement cost of all structures. It would seem that the same logic that came from Mr. Rey's finding on triggers for bulkhead removal would also apply here and I ask that he review this section pertaining to shoreline vegetation.

Thanks you.
Dick Sandaas

Subject: RE: Question on Regulations
Date: Thu, 20 Aug 2009 17:52:53 -0700
From: TSwan@ci.kirkland.wa.us
To: eride@msn.com
CC: PStewart@ci.kirkland.wa.us

Hello Dick:

In response to your question, vegetation is required with new construction of a home, pier or bulkhead or new use. For existing development, look at Section 83.5505.g for Nonconforming Shoreline Setback Vegetation for the 2 situations when vegetation is required.

Let me know if this answers your question. Thank you.

Teresa Swan
Senior Planner
(425) 587-3258 Fax (425) 587-3232
tswan@ci.kirkland.wa.us
City of Kirkland
123-5th Ave
Kirkland, WA 98033
Tuesdays-Thursday 8:45pm to 5pm



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From: Richard Sandaas [mailto:eride@msn.com]
Sent: Tuesday, August 18, 2009 9:52 AM
To: Teresa Swan; Paul Stewart
Subject: FW: Question on Regulations

Hello:

I just learned that emails may have not been received last Friday due to technical problems. Here's one that I sent Friday, in case you didn't get it.

Dick S.

From: eride@msn.com
To: tswan@ci.kirkland.wa.us; pstewart@ci.kirkland.wa.us
Subject: Question on Regulations
Date: Fri, 14 Aug 2009 12:04:17 -0700

Teresa and Paul:

I have a question regarding Section 83.400, Tree Management and Vegetation in Shoreline Setback, Article 3, Required Vegetation in the Shoreline:

What is the trigger for compliance with this section?

Thanks
Dick Sandaas

Teresa Swan

From: Daved [Daved@waterfrontconstruction.com]
Sent: Tuesday, September 01, 2009 3:12 PM
To: Cathy Beam; SBennett@ci.lake-forest-park.wa.us; MPaine@bellevuewa.gov; Peter Rosen; jding@ci.kenmore.wa.us; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; Paul Stewart; travis.saunders@mercergov.org; Jean.White@kingcounty.gov; george.steierer@mercergov.org; Burcar, Joe (ECY); Teresa Swan; Stacy Clauson; Robert Grumbach; Skowlund, Peter (ECY); Pater, David (ECY)
Cc: eride@msn.com; raa@vnf.com; Mark Nelson; donovan@donovantracy.com; vanskamok@verizon.net; Mike Collins; Kathy Richardson; Ken Sethney; Laschever, Eric S.; CLAUSON Stacy A; donovan@donovantracy.com; davidhalinen@halinenlaw.com
Subject: SMP UPDATE POINTS OF INTEREST: DO BULKHEADS HARM SHORELINES AND GRATING OPEN SPACE REQUIREMENTS

To All SMP Update Parties of Interest:

I hope everyone is doing well as the dynamics associated with the controversial SMP Updates continue throughout the area. It has proven challenging to engage in a process that encourages public participation and invites input from waterfront property owners only to have these good, hard-working taxpayers disregarded at nearly every turn to meet a predetermined agenda. The SMP updates will make even the most broadminded to think twice regarding the health of the democratic process in our country and state.

Below is information on bulkheads and open space for grating on residential piers that you may find of interest as you work on your SMP Update.

GRATING

Although the City of Kirkland has gone well beyond the minimums listed in the SMP Update Requirements in several areas of their draft, it should be noted that they have sought and listened to technical advice regarding construction in the area of piles and grating. While the open area on grating should not even be a point of regulation by local governments since WDFW and the Army Corps does an excellent job of overseeing this aspect of overwater structures it should be noted that Kirkland is recommending the open area for grating be a minimum of 40% which is reasonable and attainable. The City of Redmond decided to require 50% open space so anything less will require a variance under the WAC even though there are no known **residential** gratings available with 50% open space. The City of Kirkland projects will not require a shoreline variance for a basic issue like grating. Redmond may have an alternative or deviation process to address such an issue but I did not see it in their SMP. Direct communication was made with the DOE Planner for the Redmond SMP Update well before the Agency's approval. As we all understand the SMP is a clear cut document that does not offer flexibility under DOE's regulatory hand so the more costly and time consuming Variance or Conditional Use Permit processes kick in when something is not a listed use or does not meet any dimensional standard in the SMP. A variance must meet all criteria in the WAC and is designed to approve unique circumstances and not routine issues.

I conducted some research on ADA accessibility as a result of comments received recently from the Corps for a project on the grating open space issue where the Corps requires 60% (which is never met). Below is an excerpt of my response to the Corps with some added text.

The Corps recognizes and has known for several years that there is currently no **residential** grating available with 60% open space. The only grating having 60% open space is industrial fiberglass or metal and it is unsuitable for **residential** applications. The grating proposed for this project is either 1) 43% open area Thruflow which has been approved by the Corps on all residential applications Waterfront Construction or 2) 46% open area Sun Walk, a new product Waterfront has started using on all **residential** projects.

Please note that the applicants for this joint-use project, like all our clients, have elderly and disabled citizens that will use the pier. Our country and Washington State addresses the needs of people with disabilities and ensures they are provided with the greatest degree of accessibility. As a result, ADA standards for the handicapped and those confined to wheelchairs must be taken into consideration. I have researched the ADA Accessibility Guidelines and they state the following:

4.5 Ground and Floor Surfaces.

4.5.1* General. Ground and floor surfaces along accessible routes and in accessible rooms and spaces including floors, walks, ramps, stairs, and curb ramps, shall be stable, firm, slip-resistant, and shall comply with 4.5.

4.5.4 Gratings. If gratings are located in walking surfaces, then they shall have spaces no greater than 1/2 in (13 mm) wide in one direction. If gratings have elongated openings, then they shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

The grating proposed for the project will have 43% or 46% open space and meet ADA Accessibility Guidelines because there is no residential grating available with 60% open space. The industrial grating that meets the 60% open space standard has a 3/4" opening between grates and does not meet ADA Accessibility Guidelines.

RECOMMENDATION: Do not include a requirement for grating in your SMP or if you do follow Kirkland's approach by requiring a minimum open space of 40%.

BULKHEADS

As many jump on the WA Department of Ecology (DOW) and Puget Sound Partnership (PSP) bandwagon against bulkheads and private piers, especially in Lake Washington and Lake Sammamish and many local governments are too intimidated to ask questions or challenge the state's sweeping mandates making it almost impossible to build or replace bulkheads, there are many scientists and reports that contradict the impacts from bulkheads. While regulatory agencies have admitted that there are no fresh water studies clearly identifying impacts from pier structures and shading on salmon and aquatic vegetation, there are even less studies regarding the impact of hard armoring in fresh water lakes and whether their removal will improve habitat and benefit the Chinook population at all. Even so, DOE and PSP march forward with their green agenda targeting private property owners and declaring that one can no longer protect their property unless there is a primary structure threatened with damage within 3 years.

Many of you may be interested in studying the Bainbridge Shoreline Homeowners website where there is a lot of good information on both sides of the issue. It is likely that more private citizens will like this website but for anyone interested in the truth and not just their own agenda, this is good stuff. I have tried to objectively (with some degree of skepticism) read all the reports (totaling over

1,500 pages) DOE, PSP, WRIA-8, other regulatory agencies and special interest groups use to support their position and have not found and conclusive evidence to support the degree of action being taken during the SMP Updates. It is doubtful that these same groups have researched information from the other side or their own scientists who disagree with their speculation.

Please review the article below and see what Peter Ruggerio, Department of Geosciences, Oregon State University had to say at a recent conference in the area. Although the references are from the 1980's and 1990's so are most of the references regulatory agencies are using to support their position.

The SMP update requirements encourage local governments to use all available resources and this should include those which do not agree with the position of the agencies if it is to be considered a transparent and democratic process.

Please ask yourself:

If the jury is still out on so many of these issues why is DOE, PSP and other regulatory agencies pushing such an extreme agenda against private property owners rather than an incremental approach that can be effortlessly introduced as answers are found?

Also, will research continue to be conducted if these sweeping changes are made and if investigation reveals that these changes have gone too far are the agencies prepared to work with local governments to step back and reverse regulations? This question is simply rhetorical since we all know the answer.

RECOMMENDATION: Allow bulkheads to protect property regardless of primary structures. Permit existing bulkheads to be repaired and replaced with in-kind structures that have a more environmentally friendly design and clearly meet DOE's own definition of "no net loss". Improving shallow nearshore habitat does not mean a bulkhead needs to be removed and replaced with a natural shoreline; but it often means that it can be replaced and nearshore fill installed to achieve the same results. The difference is property owners will participate with this approach and the result is improved habitat and satisfied parties all the way around.

Please see the Bainbridge Shoreline Owners article at the end of this message.

Thank you for your time, attention and interest in these very important issues.

Respectfully,

David Douglas
Permit Coordinator
Waterfront Construction, Inc.

All content below this line is from the Bainbridge Shoreline Owners website:

Bainbridge Shoreline Homeowners

Protecting the environment and our property rights.

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- News / Media
- Best Science

No proof that bulkheads harm shoreline.

Published August 29, 2009 Best Available Science , City Planning , Regional Planning 3 Comments

Peter Ruggiero, Department of Geosciences, Oregon State University

The shores of Puget Sound are rapidly being hardened and covered with artificial structures. While shoreline armoring often **succeeds in protecting upland investments**, shoreline armoring activities are **hypothesized** to represent a significant source of nearshore morphodynamic and marine habitat modification in Puget Sound.

Shoreline armoring is **believed** to affect physical processes in many ways, primarily by causing beach narrowing, sediment coarsening, and a decrease in the natural sediment supply from eroding bluffs. Shoreline armoring is also **thought** to affect biological processes through loss of upper intertidal habitat, changes in sediment composition, and decreased organic input.

However, **it has not been confirmed in the field or the laboratory** whether currents and sediment transport rates will increase or decrease in front of a hardened shoreline, as compared to a non-armored section of beach, and whether the sedimentary environment will be significantly modified.

California (1986-1994) : 'A comparison of summer and winter beach profiles on beaches with seawalls and on adjacent control beaches show **no significant long term effects or impacts of seawalls** during this seven year period.' (Griggs and co-workers early 90's)

Virginia (1980-1992): 'The results at three time scales (storm seasonal and interannual) and from the three analysis methods all supported the same conclusion, namely: the volume **erosion rates are not higher in front of seawalls.**' (Basco and co-workers mid 90's)

Oregon (1986-1998): 'Ten years of monitoring has revealed that the structures at these seven sites are having **no adverse impacts on the surrounding beach or adjacent properties.**' (Hearon and McDougal, 1996)

[Dr. Ruggiero's comments](#) are quoted from the [U.S. Geological Survey website](#) and a May 11-14 conference on shoreline armoring.

President Obama says [real science not political agendas](#) should govern policy. One wonders why Governor Gregoire rejects this opinion and relies instead on speculation as the foundation for environmental action.

See our previous article: [Does science justify bulkhead rules?](#)

=====

Peter Ruggiero is an Assistant Professor in the Department of Geosciences at Oregon State University. His current research interests include applied coastal geomorphology and developing methodologies for assessing vulnerability to coastal hazards particularly in light of a changing and variable climate. Dr. Ruggiero earned a bachelors degree in Civil Engineering from Lehigh University in 1991 and a Ph.D. in Coastal Engineering from Oregon State University in 1997. Following his graduate work, he worked for the state of Washington as a principal investigator of the Southwest Washington Coastal Erosion Study. This multi-year effort developed a quantitative understanding of the regional sediment dynamics of the Columbia River littoral cell.

Ruggiero then worked for the US Geological Survey in Menlo Park, CA between 2001 and 2005 getting involved in coastal studies in Alaska, North Carolina, and Sumatra. Since 2006, he has been at Oregon State University focusing on a variety of projects quantifying and assessing the vulnerability of communities to coastal hazards.