

**Chapter 83 – SHORELINE MANAGEMENT**

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### 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 are 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 - It is the intent of the Kirkland Shoreline Master Program (SMP) to manage the use and development of the shorelines of Kirkland, giving preference to water-dependent and water-related uses, and encouraging shoreline development and uses to avoid, minimize and mitigate impacts. In addition, the SMP, consisting of this Chapter, the Shoreline Master Program 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; and
  - 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 (the Act), including the purpose and intent as expressed in chapter 90.58 RCW and the applicable guidelines as contained in WAC 173-26, and the Shoreline 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 Chapter will be enforced as if it is part of this code.
3. Availability – All interpretations of this Chapter, 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 Chapter 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 and 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 5<sup>th</sup> 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 that 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 of 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 that 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. Channel Migration Zone:** The area along a river or other watercourse within which the channel(s) can be reasonably predicted to migrate over time as a result of natural and normally occurring hydrological and related processes when considered with the characteristics of the river or other watercourse and its surroundings.

**21. 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.

**22. 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.

**23. 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.

**24. Commercial Use:** Includes retail, office services, entertainment, recreation and/or light industrial uses, depending on the location. Retail uses are those that provide goods and/or services directly to the consumer, including service uses not usually allowed within an office use.

**25. 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.

- 26. Conditional Uses:** A use, development, or substantial development that is classified as a conditional use in KZC Section 83.170 or which is not classified within the SMP. Those activities identified as conditional uses or not classified in this Chapter must be treated according to the review criteria established in WAC 173-27-160.
- 27. Convalescent Center:** See Chapter 5 KZC.
- 28. 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.
- 29. 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.
- 30. 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.
- 31. Drainage Basin:** A specific area of land drained by a particular Kirkland watercourse and its tributaries.
- 32. 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.
- 33. Dry Land Boat Storage:** A commercial service providing storage of boats and other boat on the upland portion of a property.
- 34. Dwelling Unit, Attached:** See Chapter 5 KZC.
- 35. Dwelling Unit, Detached:** See Chapter 5 KZC.
- 36. Dwelling Unit, Stacked:** See Chapter 5 KZC.
- 37. 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 constituting the shoreline's natural ecosystem.
- 38. Ecological Restoration:** See Restore.
- 39. 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.
- 40. 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.
- 41. EII: A terminal pier section oriented perpendicular to the pier walkway.**
- 42. Feasible:** An action, such as a development project, mitigation, or preservation requirement that meets all of the following conditions:

- a. 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. Provides a reasonable likelihood of achieving its intended purpose; and
- c. Does not physically preclude achieving the project's primary intended legal use.

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.

**43. 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.

**44. 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.

**45. Finger pier:** A narrow pier section projecting from the pier walkway, typically perpendicular to the walkway and located landward of an ell in order to form the nearshore side of a boatslip.

**46 Float:** A structure that floats on the surface of the water that 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.

**47. 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.

**48. Floodplain:** Synonymous with the one hundred year floodplain and means the land susceptible to inundation with a one (1) 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.

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

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

**51. 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.

**52. Geologically Hazardous Areas:** Landslide, erosion and seismic hazardous areas as defined in KZC 85.13 and in WAC 365-190-080(4).

**53. Geotechnical Analysis:** See Geotechnical Report.

**54. 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.

**55. 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.

**56. 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 that are located at or waterward of ordinary high water, as well those structures located on average within five (5) feet landward of OHWM. These include bulkheads, rip-rap, groins, retaining walls and similar structures.

**57. Helipad:** A takeoff and landing area for helicopters.

**58. 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.

**59. Impervious Surface:** A hard surface water that 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 that 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.

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

**61. 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.

**62. 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.

**63. 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.

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

**65. 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.

**66. 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 that 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.

**67. 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.

**68. 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.

**69. 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).

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

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

**72. Must:** means a mandate; the action is required.

**73. 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.

**74. Nonconforming Use or Development:** A shoreline use or development that 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.

**75. Non-Structural Flood Hazard Reduction Measures:** Improvements, actions or provisions that reduce flood hazard by non structural means, such as setbacks, land use controls, wetland restoration, dike removal, use relocation, biotechnical measures and surface water management programs.

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

**75. 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.

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

**78. 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.

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

**80. 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.

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

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

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

**85. 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.

**86. Priority Habitat:** A habitat type with unique or significant value to one or more species as defined in WAC173-26-020.

**87. Priority Species:** Species requiring protective measures and/or management guidelines to ensure their persistence at genetically viable population levels based on the criteria in WAC 173-26-020.

**88. 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.

**89. 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.

**90. Public Access Pier or Boardwalk:** An elevated structure that is constructed waterward of the OHWM and intended for public use.

**91. 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.

**92. Public Use Area:** A portion of private property that is dedicated to public use and that 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.

**93. Qualified Professional:** An individual with relevant education and training, as determined by the Planning Official, and with at least 3 years experience in biological fields such as botany, fisheries, wildlife, soils, ecology, and similar areas of specialization, and including a professional wetland scientist.

**94. 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.

**95. Recreational Use:** Commercial and public facilities designed and used to provide recreational opportunities to the public.

**96. Residential Use:** Developments in which people 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) and multifamily development (known as detached, attached or stacked dwelling units) and the creation of new residential lots through land division.

**97. 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.

**98. Restoration:** See Restore.

**99. Revetment:** A shoreline protective structure constructed on a slope, and used to prevent erosion.

**100. 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.

**101. Salmonid:** A member of the fish family salmonidae, including chinook, coho, chum, sockeye, and pink salmon; rainbow, steelhead, and cutthroat trout; brown trout; brook and dolly varden char, kokanee, and white fish.

**102. Secondary Basins:** The secondary basins depicted on the Kirkland Sensitive Areas Map.

**103. Shall:** Means a mandate; the action must be taken.

**104. Shorelands:** Those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the OHWM; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters that are subject to the provisions of the Shoreline Management Act; the same to be designated as to location by the Department of Ecology.

**105. Shoreland Areas:** See Shorelands.

**106. Shoreline Functions:** See Ecological Functions.

**107. 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.

**108. 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.

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

**110. 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.

**111. 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.

**112. 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.

**113. 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.

**114. 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.

**115. Significant Tree:** See Chapter 5 KZC.

**116. 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.

**117. Skirting:** Vertical boards along the edge of a pier extending downward.

**118. 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.

**119. 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.

**120. Structural Flood Hazard Reduction Measures:** Improvements or activities that reduce flood hazard by structural means, such as dikes, levees, revetments, floodwalls, channel realignment, and elevation of structures consistent with the National Flood Insurance Program.

**121. 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.

**122. 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.

**123. Transportation Facilities:** Facilities that include street pavement, curb and cutter, sidewalk and landscape strip as regulated under KZC 110.

**124. Tour Boat Facility:** A moorage pier designed for commercial tour boat usage.

**125. Tree:** A woody plant with one main trunk at a minimum height of 12 feet 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.

**126. Upland:** Generally described as the dry land area above and landward of the OHWM, but not including wetlands.

**127. 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.

**128. 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.

**129. Utility Transmission Facilities:** Infrastructure and facilities for the conveyance of services, such as power lines, cables, and pipelines.

**130. View Corridor:** An open area of the subject property that provides views unobstructed by structures an across the subject property from the adjacent right-of-way to Lake Washington.

**131. Water-Dependent Use:** A use or portion of a use that cannot exist in a location that is not adjacent to the water and that is dependent on the water by reason of the intrinsic nature of its operation.

**132. 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-oriented space within the project must be devoted to the specific aspects of the use that foster shoreline enjoyment.

**133. Water-Oriented Use:** A use that is water-dependent, water-related, or water-enjoyment or a combination of such uses.

**134. 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.

**135. 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.

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

**137. Watershed Restoration Plan:** A plan, developed or sponsored by the State Department of Fish

and Wildlife, the State Department of Ecology, the State Department of Natural Resources, the State 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.

**138. 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.

**139. 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.

**140. 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.

**141. 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:

- 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 and 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 98<sup>th</sup> 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 KZC 83.90 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.

Shoreline Variances (see Chapter 141) are intended only to grant relief from specific bulk, dimensional or performance standards in this Chapter, 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

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

<sup>1</sup> 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 this Chapter 83.

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The chart is coded according to the following legend. SD = Substantial Development <sup>1</sup> 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 <sup>2</sup>	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 <sup>2</sup>	X	X	SD	See adjacent upland environments
<b>Water-related, water-enjoyment commercial uses</b>						
Any water-oriented Retail Establishment other than those specifically listed in this chart, selling goods or providing services.	X	SD <sup>3</sup>	X	X	SD	X

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemption. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and this Chapter.

<sup>2</sup> Limited to water-based aircraft facilities for air charter operations.

<sup>3</sup> Permitted as an accessory use to a Public Park.

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Retail Establishment providing new or used Boat Sales or Rental	X	SD <sup>3</sup>	X	CU <sup>4,6</sup>	SD <sup>5</sup>	See adjacent upland environments
Retail establishment providing gas and oil sale for boats	X	X	X	CU <sup>4,6</sup>	CU <sup>6</sup>	See adjacent upland environments
Retail establishment providing boat and motor repair and service	X	X	X	CU <sup>4,6</sup>	CU <sup>6</sup>	X
Restaurant or Tavern <sup>7</sup>	X	X	X	CU <sup>4</sup>	SD	X
Concession Stand	X	SD <sup>3</sup>	X	X	SD <sup>3</sup>	X
Entertainment or cultural facility	X	CU <sup>8</sup>	X	X	SD	X

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemption. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and this Chapter.

<sup>3</sup> Permitted as an accessory use to a Public Park.

<sup>4</sup> 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 52<sup>nd</sup> Street.

<sup>5</sup> Permitted in the Juanita Business District or as an accessory use to a marina.

<sup>6</sup> Accessory to a marina only.

<sup>7</sup> Drive-in or drive-through facilities are prohibited.

<sup>8</sup> Use must be open to the general public.

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The chart is coded according to the following legend.	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
SD = Substantial Development <sup>1</sup>						
CU = Conditional Use						
X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit						
Hotel or Motel	X	X	X	CU <sup>9</sup> /X	SD	X
<b>Nonwater-oriented uses</b>						
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 <sup>10</sup>	X
Office Uses	X	X	X	X	SD <sup>10</sup>	X
Neighborhood-oriented Retail Establishment	X	X	X	CU <sup>11</sup>	SD <sup>10</sup>	X
Private Lodge or Club	X	X	X	X	SD <sup>10</sup>	X
Vehicle Service Station	X	X	X	X	X	X
Automotive Service Center	X	X	X	X	X	X

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemption. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and this Chapter.

<sup>9</sup> Permitted in Planned Area 3B if allowed through the Lakeview Neighborhood Plan.

<sup>10</sup> 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 98<sup>th</sup> Avenue NE.

<sup>11</sup> Permitted if located on the east side of Lake Washington Blvd NE between NE 60<sup>th</sup> Street and 7<sup>th</sup> Ave S.

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Dry land boat storage	X	X	X	X	X	X
<b>Industrial Uses</b>						
<b>Water-dependent uses</b>	X	X	X	X	X	X
<b>Water-related uses</b>	X	X	X	X	X	X
<b>Nonwater-oriented uses</b>	X	X	X	X	X	X
<b>Recreational Uses</b>						
<b>Water-dependent uses</b>						
Marina <sup>13</sup>	X	CU	X	SD	SD	See adjacent upland environments
Piers, docks, boat lifts and canopies serving Detached Dwelling Unit <sup>12</sup>	X	X	SD	SD	SD <sup>13</sup>	

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemption. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and this chapter.

<sup>12</sup> No boat shall be used as a place of habitation.

<sup>13</sup> Permitted if located south of NE 60<sup>th</sup> Street only.

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<p>The chart is coded according to the following legend.</p> <p>SD = Substantial Development<sup>1</sup></p> <p>CU = Conditional Use</p> <p>X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit</p>	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Piers, docks, boat lifts and canopies serving Detached, Attached or Stacked Dwelling Units <b>Error! Bookmark not defined.</b>	X	X	X	SD	SD	
Float	X	SD <sup>3</sup>	X	X	SD <sup>3</sup>	
Tour Boat Facility	X	X	X	X	SD <sup>14</sup>	
Moorage buoy <sup>13</sup>	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	

<sup>3</sup> Permitted as an accessory use to a Public Park.

<sup>13</sup> Permitted if located south of NE 60<sup>th</sup> Street only.

<sup>14</sup> Permitted as an accessory use to a Marina or Public Park only.

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemption. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and this Chapter.

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<p>The chart is coded according to the following legend.</p> <p>SD = Substantial Development<sup>1</sup></p> <p>CU = Conditional Use</p> <p>X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit</p>	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Any water-dependent recreational development other than those specifically listed in this chart	CU	SD	SD	SD	SD	
<b>Water-related, water-enjoyment uses</b>						
Any water-oriented recreational development other than those specifically listed in this chart	X	CU	CU	CU	SD	X
Other Public Park Improvements <sup>15</sup>	CU	SD	SD	SD	SD	X
Public Access Facility	SD <sup>16</sup>	SD	SD	SD	SD	See adjacent upland environments
<b>Nonwater-oriented uses</b>						
Nonwater-oriented recreational development.	X	X	X	X	SD <sup>10</sup>	X
<b>Residential Uses</b>						

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemption. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and this Chapter.

<sup>15</sup> This use does not include other public recreational uses or facilities specifically listed in this chart.

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

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The chart is coded according to the following legend.	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
SD = Substantial Development <sup>1</sup>						
CU = Conditional Use						
X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit						
Detached dwelling unit	CU	CU	SD	SD	SD <sup>13</sup>	X
Accessory dwelling unit <sup>17</sup>	X	X	SD	SD	SD <sup>13</sup>	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 <sup>18</sup>	X	X	X	CU	SD	X
Convalescent Center or Nursing Home	X	X	X	CU <sup>19</sup>	SD <sup>20</sup>	X
<b>Land division</b>	SD <sup>21</sup>	SD <sup>21</sup>	SD	SD	SD	X
<b>Institutional Uses</b>						

<sup>10</sup> 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 98<sup>th</sup> Avenue NE.

<sup>13</sup> Permitted if located south of NE 60<sup>th</sup> Street only.

<sup>17</sup> One accessory dwelling unity (ADU) is permitted subordinate to a detached dwelling unit.

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemption. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and this Chapter.

<sup>10</sup> 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 98<sup>th</sup> Avenue NE.

<sup>18</sup> A nursing home use may be permitted as part of an assisted living facility use.

<sup>19</sup> Permitted if located on the east side of Lake Washington Blvd NE/Lake St S, or the east side of 98<sup>th</sup> Avenue NE.

<sup>20</sup> 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 98<sup>th</sup> Avenue NE or on the south side of NE Juanita Drive.

<sup>21</sup> May not create any new lot that would be wholly contained within shoreland area in this shoreline environment.

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The chart is coded according to the following legend. SD = Substantial Development <sup>1</sup> 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
Government Facility	X	SD	SD	SD	SD	X
Community Facility	X	X	X	X	SD	X
Church	X	X	X	CU <sup>19</sup>	SD <sup>20</sup>	X
School or Day-Care Center	X	X	X	CU <sup>19</sup>	SD <sup>10</sup>	X
Mini-School or Mini-Day-Care Center	X	X	X	SD <sup>19</sup>	SD <sup>10</sup>	X
<b>Transportation</b>						
<b>Water-dependent</b>						
Bridges	CU	CU	SD	SD	SD	See adjacent upland environments
Passenger-only Ferry terminal	X	X	X	X	CU	
Water Taxi	X	SD <sup>22</sup>	SD <sup>22</sup>	SD <sup>22</sup>	SD <sup>22</sup>	
<b>Nonwater-oriented</b>						
Arterials, Collectors, and neighborhood access streets	CU	SD <sup>23</sup> /CU	SD	SD	SD	X
Helipad	X	X	X	X	X	X
<b>Utilities</b>						

<sup>22</sup> Permitted as an accessory use to a marina or a public park.

<sup>23</sup> Construction of pedestrian and bicycle facilities only.

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<p>The chart is coded according to the following legend.</p> <p>SD = Substantial Development<sup>1</sup></p> <p>CU = Conditional Use</p> <p>X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit</p>	Natural	Urban Conservancy	Residential - L	Residential – M/H	Urban Mixed	Aquatic
Utility production and processing facilities	X	CU <sup>24</sup>	CU <sup>24</sup>	CU <sup>24</sup>	CU <sup>24</sup>	X
Utility transmission facilities	CU <sup>25</sup>	SD <sup>24</sup>	SD <sup>24</sup>	SD <sup>24</sup>	SD <sup>24</sup>	CU <sup>24</sup>
Personal Wireless Service Facilities <sup>25</sup>	X	SD	SD	SD	SD	X
Radio Towers	X	X	X	X	X	X
<b>SHORELINE MODIFICATIONS</b>						
Breakwaters/jetties/rock weirs/groins	X	X	X	SD <sup>26</sup> /CU	SD <sup>26</sup> /CU	See adjacent upland environments
Dredging and dredge materials disposal	SD <sup>26</sup> /CU					
Fill waterward of the OHWM	SD <sup>26</sup> /CU					
Land surface modification	SD <sup>26</sup> /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	

<sup>24</sup> This use may be allowed provided there is no other feasible route or location. Must be underground unless not feasible.

<sup>25</sup> Wireless towers are not permitted.

<sup>1</sup> A development activity may also be exempt from the requirement to obtain a substantial development permit. See Chapter 141 KZC addressing exemption. If a development activity is determined to be exempt, it must otherwise comply with applicable provisions of the Act and this Chapter.

<sup>26</sup> Permitted under a substantial development permit when associated with certain shoreline stabilization measures, and habitat and natural system enhancement projects. See KZC 83.300.10.g and KZC 83.350.

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<p>The chart is coded according to the following legend.</p> <p>SD = Substantial Development<sup>1</sup></p> <p>CU = Conditional Use</p> <p>X = Prohibited; the use is not eligible for a Variance or Conditional Use Permit</p>	<b>Natural</b>	<b>Urban Conservancy</b>	<b>Residential - L</b>	<b>Residential – M/H</b>	<b>Urban Mixed</b>	<b>Aquatic</b>
Soft Structural Shoreline Stabilization Measures	X	SD	SD	SD	SD	

**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
<b>Residential Uses</b>						
Detached Dwelling Units and Accessory Dwelling Units						
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"> <li>• 5,000 sq. ft. if located on east side of Lake St S, at 7<sup>th</sup> Ave S; and</li> <li>• 7,200 sq. ft. if subject to the Historic Preservation provisions of KMC 22.28.048</li> </ul>	3,600 sq. ft.	3,600 sq. ft.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback <sup>1</sup>	n/a	Thirty (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.	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.  For those properties located along Lake Ave W south of the Lake Ave W Street End Park, the following standard shall apply:  If dwelling units exist immediately	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.

<sup>1</sup> 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
				<p>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 dwelling units, but at a minimum width of 15 feet. If a dwelling unit is not adjacent to the subject property, then the setback of the 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</p>		

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DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
				83.190.2.b.3		
Maximum Lot Coverage	n/a	50%	50%	50%	60%	80% except: In the CBD, 100% for properties that do not abut Lake Washington; otherwise 90%
Maximum Height of Structure <sup>2</sup>	n/a	25' above ABE <sup>3</sup>	35' above ABE	30' above ABE	35' above ABE	35' above ABE
Other Residential Uses (Attached, Stacked, and Detached Dwelling Units/multifamily; Assisted Living Facility; Convalescent Center or Nursing Home)						
Maximum Density <sup>4</sup>	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 <sup>1</sup>	n/a	n/a	n/a	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

<sup>1</sup> Critical area buffer and buffer setback requirements may impose a larger setback requirement. Please see Section 83.500 and 83.510.

<sup>2</sup> 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.

<sup>3</sup> Structure height may be increased to 30' above ABE in the Natural shoreline environment. See KZC83.190.4.c.1

<sup>4</sup> For density purposes 2 assisted living units shall be constitute one dwelling unit.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
					parcel depth.	depth.  In the PLA 15A zone located south of NE 52 <sup>nd</sup> 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% in the CBD	80% except: zones 100% on properties that do not abut Lake Washington; otherwise 90%

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Maximum Height of Structure <sup>2</sup>	n/a	n/a	n/a	n/a	30' above ABE <sup>5</sup>	41' above ABE, except for the following: <ul style="list-style-type: none"> <li>• 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.</li> <li>• In the PLA 15A zone located south of NE 52<sup>nd</sup> Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.<sup>6</sup></li> </ul>
<b>Commercial Uses</b>						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a

<sup>2</sup> 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

<sup>5</sup> Structure height may be increased to 35' above ABE. See KZC 83.190.4

<sup>6</sup> See KZC 83.190.4 for height in Master Plan.

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback <sup>1</sup>	n/a	n/a	Water-dependent uses: 0', Water-related use: 25', Water-enjoyment use: 30', Other uses: Outside of shoreline jurisdictional area, if feasible, otherwise 50'.	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 <sup>nd</sup> 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% in the CBD	80% except: zones 100% on properties that do not abut Lake Washington; otherwise 90%

<sup>1</sup> Critical area buffer and buffer setback requirements may impose a larger setback requirement. Please see Section 83.500 and 83.510.

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DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Maximum Height of Structure <sup>2</sup>	n/a	n/a	If adjoining the Residential-L Shoreline Environment, then 25' above ABE. Otherwise, 30' above ABE. <sup>3</sup>	n/a	30' above ABE <sup>5</sup>	41' above ABE, except for: <ul style="list-style-type: none"> <li>• 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.</li> <li>• In the PLA 15A zone located south of NE 52<sup>nd</sup> Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.<sup>6</sup></li> </ul>
<b>Recreational Uses</b>						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a

<sup>6</sup> See KZC 83.190.4 for height in Master Plan.

<sup>1</sup> Critical area buffer and buffer setback requirements may impose a larger setback requirement. Please see Section 83.500 and 83.510.

<sup>2</sup> 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

<sup>3</sup> Structure height may be increased to 30' above ABE in the Natural shoreline environment. See KZC83.190.4.c.1

<sup>5</sup> Structure height may be increased to 35' above ABE. See KZC 83.190.4

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback <sup>1</sup>	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 jurisdiction 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 <sup>nd</sup> 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: zones 100% on properties that do not abut Lake Washington; otherwise 90%
Maximum Height of Structure <sup>2</sup>	n/a	25' above ABE	If adjoining the Residential-L Shoreline Environment, then	25' above ABE	30' above ABE <sup>4</sup>	41' above ABE, except for the following: <ul style="list-style-type: none"> <li>In the CBD zones, if located on the east side</li> </ul>

<sup>2</sup> 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

<sup>3</sup> Structure height may be increased to 30' above ABE in the Natural shoreline environment. See KZC83.190.4.c.1

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
			25' above ABE. Otherwise, 30' above ABE <sup>3</sup>			of Lake St S, 55' above the abutting right-of-way measured at the midpoint of the frontage of the subject property. <ul style="list-style-type: none"> <li>In the PLA 15A zone located south of NE 52<sup>nd</sup> Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.</li> </ul>
<b>Institutional Uses</b>						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a
Shoreline Setback <sup>1</sup>	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 parcel depth, except in no case is the shoreline	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.

<sup>1</sup> 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
				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: zones 100% on properties that do not abut Lake Washington; otherwise 90%
Maximum height of structure <sup>2</sup>	n/a	n/a	If adjoining the Residential-L Shoreline Environment, then 25' above ABE. Otherwise, 30' above ABE <sup>3</sup>	25' above ABE	30' above ABE <sup>5</sup>	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.
<b>Transportation Facilities</b>						
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 <sup>1</sup>	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 <sup>2</sup>	n/a	n/a	n/a	n/a	n/a	n/a
<b>Utilities</b>						
Minimum Lot Size	n/a	n/a	n/a	n/a	n/a	n/a

<sup>1</sup> Critical area buffer and buffer setback requirements may impose a larger setback requirement. Please see Section 83.500 and 83.510.

<sup>2</sup> 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

<sup>3</sup> Structure height may be increased to 30' above ABE in the Natural shoreline environment. See KZC83.190.4.c.1

<sup>5</sup> Structure height may be increased to 35' above ABE. See KZC 83.190.4

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Shoreline Setback <sup>1</sup>	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 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	5%	30%	50%	80%	80% except in the CBD zones, 100% on properties that do not abut Lake Washington; otherwise 90%
Maximum Height of	n/a	25' above	If adjoining the	25' above ABE	30' above ABE <sup>5</sup>	41' above ABE, except:

<sup>1</sup> Critical area buffer and buffer setback requirements may impose a larger setback requirement. Please see Section 83.500 and 83.510.

<sup>2</sup> 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

<sup>2</sup> 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

<sup>3</sup> Structure height may be increased to 30' above ABE in the Natural shoreline environment. See KZC83.190.4.c.1

<sup>5</sup> Structure height may be increased to 35' above ABE. See KZC 83.190.4

DEVELOPMENT STANDARDS	SHORELINE ENVIRONMENT					
	Aquatic	Natural	Urban Conservancy	Residential – L	Residential – M/H	Urban Mixed
Structure <sup>2</sup>		ABE	Residential-L Shoreline Environment, then 25' above ABE. Otherwise, 30' above ABE <sup>3</sup>			<ul style="list-style-type: none"> <li>• 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.</li> <li>• In the PLA 15A zone located south of NE 52<sup>nd</sup> Street, mixed-use developments approved under a Master Plan shall comply with the Master Plan provisions.<sup>5</sup></li> </ul>

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**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 pedestrian 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 shoreline 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 a 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 residence 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 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:
    - 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 (4) 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 hard shoreline stabilization measure ~~shore erosion control structure~~ unless approved under the provisions of KZC 83.300 and shall be located, on average, five (5) feet landward or greater of the OHWM, 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 (2) 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 ~~mixed~~ 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 (1) 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 building design must be oriented for the view to 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. The City will make the determination if any parking and/or a passenger loading area will be required.
  - 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.

**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 is 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 that 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 the lake 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 net 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 on the substrate at any time of year.

**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 for no net loss standard and mitigation sequencing.
- d. For structures proposed to be extended waterward of the Inner Harbor Lines, see KZC 83.370.

2. Setbacks

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

<b>New Pier, Dock, Boatlift and Moorage Pile for Detached Dwelling Unit</b>	<b>Minimum Setback Standards</b>
Side property lines	<u>5 ft for moorage pile; otherwise</u> 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., <u>except that this standard shall not apply to moorage piles</u>
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 section or cannot be permitted through the Administrative Approval for Alternative Design process in this section 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:

<b>New Pier, Dock or Moorage Piles for Detached Dwelling Unit (single family)</b>	<b>Dimensional and Design Standards</b>
<b>Maximum Area:</b> 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.

**EXHIBIT D**  
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	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.
<b>Maximum Length</b> 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
<b>Maximum Width</b>	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.  <u>For piers or docks with no ells or fingers, the most waterward 26 ft. section of the walkway may be 6 ft. wide</u>
<b>Height</b> 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 surface for diving boards or similar features.  Maximum of 3 feet above deck for safety railing, which shall be an open framework
<b>Minimum Water Depth</b> 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 greater at the landward end of the float
<b>Decking</b> 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.
<b>Location</b> of ells, fingers and deck platforms	No closer than 30 ft. waterward of the OHWM  Within 30 ft. of the OHWM, only the access ramp portion of pier or dock is allowed.
<b>Pilings, Moorage Piles, and Buoys</b>	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
<b>Mitigation</b>	Plantings or other mitigation as described below in KZC 83.270.5

- b. The City shall approve the following modifications to a new pier proposal that deviates from the dimensional standards of KZC 83.270.4, subject to both U.S Army Corps of Engineer and Washington Department of Fish and Wildlife approval to an alternate project design. In addition, the following requirements and all other applicable provisions in this Chapter shall be met.

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

With submittal of a building permit, the applicant shall provide documentation that the U.S. Army Corps of Engineers, and the Washington Department of Fish and Wildlife have approved the alternative proposal design.

5. Mitigation. All proposals involving new 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 and 60% shrubs 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 (2) years after planting; and
  - ii. One hundred (100) percent survival of trees and eighty (80) percent survival of remaining native plants in years three (3) through five (5).

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:

<b>Replacement of Existing Pier or Dock for Detached Dwelling Unit (single family)</b>	<b>Requirements</b>
Replacement of entire existing pier or dock, including piles OR more than 50 percent of the pier-support piles and more than 50 percent of the decking or decking substructure (e.g. stringers)	Must meet the dimensional decking 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, shall be removed.
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- b. Alternative Design - The City shall approve the following modifications to a pier replacement proposal that deviates from the dimensional standards of KZC 83.270.4, subject to both U.S Army Corps of Engineer and Washington Department of Fish and Wildlife approval to an alternate project design. In addition, the following requirements and all other applicable provisions in this Chapter shall be met.

<b>Administrative Approval for Alternative Design of Replacement Pier or Dock for Detached Dwelling Unit</b>	<b>Requirements</b>
<b>State and Federal Agency Approval</b>	U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife have approved proposal.
<b>Maximum Area</b>	No larger than existing pier
<b>Maximum Length</b>	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
<b>Maximum Width</b>	4 ft. for portion of pier or dock located within 30 feet of the OHWM; otherwise, 6 feet for walkways  8 ft. for ells and float decking attached to a pier  <u>For piers with no ells or fingers, the most waterward 26 ft. section of the walkway may be 8 ft. wide</u>  Otherwise, the pier and all components shall meet the standards noted in KZC 83.270.4
<b>Minimum Water Depth</b>	No shallower than authorized through state and federal approval

With submittal of a building permit, the applicant shall provide documentation that the U.S. Army Corps of Engineers, and the Washington Department of Fish and Wildlife have approved the alternative proposal design.

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:

<b><u>Addition to Existing Pier or Dock for Detached Dwelling Unit (single family)</u></b>	<b><u>Requirements</u></b>
<b>Addition or enlargement</b>	Must demonstrate that there is a need for the

	<p>enlargement of an existing pier or dock.</p> <p>Examples of need include, but are not limited to safety concerns or inadequate depth of water.</p>
<b>Dimensional standards</b>	<p>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.</p>
<b>Decking</b> for piers, docks walkways, ells and fingers	<p>Must convert an area of existing nearshore decking to grated decking equivalent in size to the additional surface coverage. Grated or other materials must allow a minimum of 40% light transmittance through the material.</p>
<b>Mitigation</b>	<p>Planting and other mitigation as described in KZC 83.270.5.</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>

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	<p>Must use materials as described under KZC 83.270.5</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 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 that allows a minimum of 40% light transmittance through the material.
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- 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:

<b>Boatlift, Boat Canopy and Moorages Buoy for Detached Dwelling Unit (single family)</b>	<b>Requirements</b>
<b>Location</b>	<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 <u>4.7</u> 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 style="color: red;"><del>Moorage piles or buoys shall be located no further than 12 ft. from a pier or dock</del></p>
<b>Maximum Number</b>	<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>

	4 moorage piles for joint use piers or docks, including existing piles
<b>Canopy Materials</b>	Must be made of translucent fabric materials. Must not be constructed of permanent structural material.
<b>Fill for Boatlift</b>	Maximum of 2 cubic yards of fill are permitted to anchor a boatlift, subject to the following requirements: <ul style="list-style-type: none"> <li>• May only be used if the substrate prevents the use of anchoring devices which can be embedded into the substrate</li> <li>• Must be clean</li> <li>• Must consist of rock or pre-cast concrete blocks</li> <li>• Must only be used to anchor the boatlift</li> <li>• Minimum amount of fill is utilized to anchor the boatlift</li> </ul>

**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:

<b>New Pier, Dock, Boatlift and Moorage Pile for Detached, Attached or Stacked Dwelling Units (multi-family)</b>	<b>Minimum Setback Standards</b>
Side property lines	<u>5 ft for moorage pile; otherwise</u> 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., <u>except that this provision shall not apply to moorage piles</u>
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 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. Must provide at least two (2) covered and secured waste receptacles upland of the OHWM.
  - b. 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.
  - c. Moorage facilities shall be marked with reflectors, or otherwise identified to prevent unnecessarily hazardous conditions for water surface users during the day or night.
  - d. Exterior finish shall be generally non-reflective.
  - e. 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 (4) inches high.
  - f. 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:

<b>New Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (multi-family)</b>	<b>Dimensional and Design Standards</b>
<b>Maximum Width</b>	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 An alternative design in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies.
<b>Height</b> 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 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
<b>Minimum Water Depth</b> 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 <u>An alternative design in lieu of meeting these requirements shall be allowed if approved by other state and federal agencies.</u>
<b>Decking</b> for piers, docks walkways, platform lifts, ells	Must be fully grated or contain other materials that allow a minimum of 40% light transmittance through the material

and fingers	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
<b>Location</b> of ells, fingers and deck platforms	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
<b>Pilings and Moorage Piles</b>	First set of piles located no closer than 18 ft from OHWM <del>Pilings shall be composed of steel, concrete, plastic or untreated wood.</del> Piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds.
<b>Mitigation</b>	Plantings and other mitigation as described in KZC 83.280.6 below.

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 and 60% shrubs 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 five (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 83.280.5 when the entire existing pier or dock is replaced, including piles or when more than 50 percent of the pier-support piles and more than 50 percent of the decking or decking substructure (e.g. stringers). However, the mitigation requirement for Additions to Piers and Docks in KZC 83.280.7.b below shall be met and not the mitigation requirements for New Piers or Docks in KZC 83.280.6.
- b. Additions – Proposals involving the modification and/or enlargement of existing piers or docks must comply with the following measures:

<b>Additions to Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (multi-family)</b>	<b><u>Requirements</u></b>
<b>Addition or enlargement</b>	Must demonstrate that there is a need for the enlargement of an existing pier or dock. - <del>Examples of need include, but are not limited to, safety concerns or inadequate depth of water.</del>
<b>Dimensional standards</b>	Enlarged portions must comply with the new pier or dock dimensional standards for length, width, height, water depth, location, decking material and pilings and for materials as described in KZC 83.280.
<b>Decking</b> 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. Grated or other materials must allow a minimum of 40% light transmittance through the material.

<b>Mitigation</b>	<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>
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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:

<b>Repair to Pier, Dock or Moorage Piles for Detached, Attached or Stacked Dwelling Units (Multi-family)</b>	<b><u>Requirements</u></b>
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 considerations</p>
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 that allows a minimum of 40% light transmittance through the 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:

<b>Boatlift, Boat Canopy and Moorages Buoy for Detached, Attached or Stacked Dwelling</b>	<b>Regulations</b>
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<b>Units (Multi-family)</b>	
<b>Location</b>	<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 at least 4 ft. above the <u>ordinary high water, and the top of the canopy must not extend more than 7 ft. above an associated pier</u><del>OHWM</del></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><del>Moorage piles shall be located within 12 ft. of a pier or dock</del></p>
<b>Maximum Number</b>	<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>
<b>Canopy Materials</b>	<p>Must be made of translucent fabric materials.</p> <p>Must not be constructed of permanent structural material.</p>
<b>Fill for Boatlift</b>	<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"> <li>• May only be used if the substrate prevents the use of anchoring devices which can be embedded into the substrate</li> <li>• Must be clean</li> <li>• Must consist of rock or pre-cast concrete blocks</li> <li>• Must only be used to anchor the boatlift</li> <li>• Minimum amount of fill is utilized to anchor the boatlift</li> </ul>

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:

<b>Marinas and Moorage Facilities Associated with Commercial Uses</b>	<b>Minimum Setback Standards</b>
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.
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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 two (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 one (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 (4) 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:

<b>New Marinas and Moorage Facilities Associated with Commercial Uses</b>	<b>Dimensional and Design Standards</b>
<b>Maximum Width</b>	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.
<b>Height</b> 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
<b>Decking</b> 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
<b>Location</b> 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 <u>An alternative design in lieu of meeting these requirements may be</u>

	<u>allowed if approved by other state and federal agencies.</u>
<b>Pilings</b>	First set of piles located no closer than 18 ft from OHWM <del>Pilings shall be composed of steel, concrete, plastic or untreated wood.</del> Piles shall not be treated with pentachlorophenol, creosote, chromated copper arsenate (CCA) or comparably toxic compounds.
<b>Mitigation</b>	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. However, the mitigation requirement for Additions to Marinas and Moorage Facilities Associated with Commercial Uses in KZC 83.290.6.b below shall be met and not the mitigation requirements for New Marinas and Moorage Facilities Associated with Commercial Uses in KZC 83.290.
- b. Additions – Proposals involving the modification and/or enlargement of marinas must comply with the following measures:

<b>Additions to Marinas and Moorage Facilities Associated with Commercial Uses</b>	<b><u>Requirements</u></b>
<b>Addition or enlargement</b>	Must demonstrate that there is a need for the enlargement of an existing pier or dock <del>based upon safety concerns or inadequate depth of water.</del>
<b>Dimensional standards</b>	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.
<b>Decking</b> 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 that allows a minimum of 40% light transmittance through the material
<b>Mitigation</b>	As determined through Mitigation Sequencing in KZC 83.360  Existing skirting shall be removed and may not be replaced  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
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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:

<b>Repair to Marinas and Moorage Facilities Associated with Commercial Uses</b>	<b><u>Requirements</u></b>
<b>Replacement piles</b>	<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>
<b>Replacement of 10 percent or more of the decking or decking substructure</b>	Must replace any solid decking surface located within the nearshore 30 feet of the pier or dock with a grated surface material
<b>Repair of the roof structure of existing boathouses or other similar covered moorage</b>	Must use translucent materials

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 83.300.7:

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)	<p>Allowed when existing primary structure is 10 feet or less from OHWM</p> <p>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.</p> <p>Requires mitigation plantings</p>
Major Repair or Replacement of Hard Shoreline Structural Measures	<p>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</p> <p>A major repair is repair to more than 75 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 written narrative that provides a demonstration of need</p>
Minor Repair of Hard Shoreline Stabilization	Does not meet threshold of new, enlarged,

Measure	major repair or replacement measurement. No geotechnical report or needs assessment required.
New, Enlarged, Repair or Replacement of Soft Shoreline Stabilization Measure	Allowed when existing primary structure is 10 feet or less from OHWM or for repair or replacement.  For primary structure greater than 10 feet from the OHWM, new or enlarged requires a written narrative that provides a demonstration of need

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). Primary structure includes appurtenances listed under WAC 173-14-040, but not tool sheds, greenhouses, swimming pools, spas and other ancillary residential improvements listed in KZC 83.80.5.

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 ten (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 ten (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.
- (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,
  - 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
  - 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.
  - 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 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.
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 structure landward and/or sloping the structure 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 ten (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 ten (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 and 60% shrubs 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 KZC 83.300.11 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 KZC 83.300.10, 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 KZC 83.850.1 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.
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 KZC 83.360.1 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.

**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 two (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 chart 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 option chart in KZC 83.380.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 or final inspection, the applicant shall provide a final as-built plan of any completed improvements authorized or required under this subsection.
    - 4) Applicants 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 Options Item 1 in the chart below is used.
- d. The chart below describes the setback reduction options:

<b>Shoreline Setback Reduction Options</b>		<b>Reduction Allowance</b>	
		<b>Standard Reduction (min. 25' setback)</b>	<b>Residential-L, south of Lake Ave W Street End Park (min. 15' setback)</b>
<b>Water Related Conditions or Actions</b>			
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 Option #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 may 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 Option #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	Reduce required setback by 5 percentage points, or in cases where the required	Reduce required setback by 5 feet

<b>Shoreline Setback Reduction Options</b>		<b>Reduction Allowance</b>	
		<b>Standard Reduction (min. 25' setback)</b>	<b>Residential-L, south of Lake Ave W Street End Park (min. 15' setback)</b>
	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.	setback is 60' reduce setback by 4 feet	
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
<b>Upland Related Conditions or Actions</b>			
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	Reduce	Reduce

<b>Shoreline Setback Reduction Options</b>		<b>Reduction Allowance</b>	
		<b>Standard Reduction (min. 25' setback)</b>	<b>Residential-L, south of Lake Ave W Street End Park (min. 15' setback)</b>
	reduced shoreline setback a minimum of 5 additional feet in width.	required setback by 2 percentage points, or in cases where the required setback is 60' reduce setback by 4 feet	required setback by 2 feet
8	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 vehicular easement roads, such as 5 <sup>th</sup> 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
9	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
10	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

<b>Shoreline Setback Reduction Options</b>	<b>Reduction Allowance</b>	
	<b>Standard Reduction (min. 25' setback)</b>	<b>Residential-L, south of Lake Ave W Street End Park (min. 15' setback)</b>
	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 KZC 83.380.d.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 98<sup>th</sup> 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.
 

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:

<b>Removed Tree Type</b>	<b>Replacement Requirement</b>
1 conifer tree less than 24 inches in diameter as measured at breast height	<p>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) 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.</p> <p>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.</p>
1 deciduous tree less than 24 inches in diameter as measured at breast height	<p>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.</p> <p>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.</p>
1 conifer or deciduous tree 24 inches in diameter or greater as measured at breast height	<p>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.</p> <p>If the City arborist approved removal of the tree, tree replacement shall be:</p> <p>For removal of 1 conifer tree, replace with 2 native conifer trees at least 6 feet in height at</p>

	<p>the time of planting.</p> <p>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.</p>
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- 2) An alternative replacement option shall be approved if an applicant can demonstrate that:
- 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 at least 60% shrubs and some groundcovers selected from the Kirkland Native Plant List that 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.

3) 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 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 demonstrates 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 subsection 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 at least 60% shrubs, perennials and groundcovers selected from the Kirkland Native Plant List that 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 minimize 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.
    - 2) Planting Requirements –
      - a) For uses other than those list below in KZC 83.400.2) 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 walkway required under KZC 83.420 may extend into the required landscape strip as necessary to meet the public pedestrian 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 primary structure and OHWM, such as the existing structure is located in very close proximity to the OHWM; the area in between the primary structure and the OHWM is encumbered by a sanitary sewer or public pedestrian access easement or other constraining factors; or
  - 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 the vegetation placement will obstruct existing views to the lake.

The alternate measures **must 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 as-built landscape plan and a recorded agreement, in a form approved by the City Attorney, 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 (30) 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 zoning 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 this Chapter and the zoning Master Plan.
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 abutting 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 ten (10) feet but no closer than five (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 five (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 walkways, 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 21<sup>st</sup> to September 21<sup>st</sup> 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 located within the Residential - L shoreline environment., except the following uses and developments that are required to comply with the public access provisions:
      - 1) Public entities, such as government facilities and public parks; or
      - 2) Divisions of land containing 5 or more new lots located within the shoreline jurisdiction.
    - 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 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 Urban Mixed 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, lights 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, to direct the light towards the ground and away from the shoreline, and to prevent lighting from spilling on to the lake water. 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, be directed away from adjacent

properties and the water, and designed and located to prevent lighting from spilling onto the lake 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 Detached, Attached Stacked (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.

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 this code 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 83. 500 and 83.510.
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 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
<b>Category I</b>	
Natural Heritage Wetlands	215 feet
Bog	215 feet
Habitat score <sup>†</sup> from 29 to 36 points	225 feet
Habitat score from 20 to 28 points	150 feet
Other Category I wetlands	125 feet

<b>Category II</b>	
Habitat score from 29 to 36 points	200 feet
Habitat score from 20 to 28 points	125 feet
Other Category II wetlands	100 feet
<b>Category III</b>	
Habitat score from 20 to 28 points	125 feet
Other Category III wetlands	75 feet
<b>Category IV</b>	50 feet

<sup>1</sup>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 in 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:

<b>Development Proposal</b>	<b>Permit Process</b>
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 <del>or Reasonable Use Exceptions</del>	Underlying development permit or 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 <sup>15</sup>	Re-establishment or Creation (R/C) and Rehabilitation (RH) <sup>1</sup>	Re-establishment or Creation (R/C) and Enhancement (E) <sup>1</sup>	Enhancement Only <sup>1</sup>
<b>All Category IV</b>	1.5:1	3:1	1:1 R/C and 1:1RH	1:1 R/C and 2:1 E	6:1
<b>All Category III</b>	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
<b>Category II</b>	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
<b>Category I Forested</b>	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
<b>Category I - based on score for functions</b>	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
<b>Category I Natural Heritage site</b>	Not allowed	6:1 Rehabilitation of a Natural Heritage	Not allowed	Not allowed	Case-by-case

<sup>15</sup> 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 <sup>15</sup>	Re-establishment or Creation (R/C) and Rehabilitation (RH) <sup>1</sup>	Re-establishment or Creation (R/C) and Enhancement (E) <sup>1</sup>	Enhancement Only <sup>1</sup>
		site			
<b>Category I Bog</b>	Not allowed	6:1 Rehabilitation of a bog	Not allowed	Not allowed	Case-by-case

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. On-Site versus Off-Site Mitigation

On-site mitigation for a wetland or its buffer 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.

**11. 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.

**12. Shoreline Variance for Wetland Modification or Wetland Buffer Modification**

An applicant who is unable to comply with the specific standards of KZC 83.500 must obtain a shoreline variance, pursuant to KZC 141.70.3 and meet the criteria set forth in WAC 183-27-170. In addition, the following City submittal requirements and criteria must also be met:

a. Submittal Requirements – As part of the shoreline variance 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 proposed development 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.
- b. Decisional Criteria – The City shall may grant approval of a shoreline variance only if all of the following criteria are met:
- 1) No other permitted type of land use for the property with less impact on the sensitive area and associated buffer is feasible;
  - 2) The proposal has the minimum area of disturbance;
  - 3) The proposal maximizes the amount of existing tree canopy that is retained;
  - 4) 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;
  - 5) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;
  - 6) The proposal meets the mitigation, maintenance, and monitoring requirements of this Chapter;
  - 7) The granting of the shoreline variance will not confer on the applicant any special privilege that is denied by this Chapter to other lands, buildings, or structures under similar circumstances.

~~12. 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.~~

13. 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.

14. 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**

<b>Stream Class</b>	<b>Primary Basins</b>	<b>Secondary Basins</b>
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 (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 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:

<b>Development Proposal</b>	<b>Permit Process</b>
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 <del>or Reasonable Use Exceptions</del>	Underlying development permit or development activity
Bulkheads or other hard stabilization measures 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. Shoreline Variance for Stream Relocation or Modification or Stream Buffer Modification

An applicant who is unable to comply with the specific standards of KZC 83.510 must obtain a shoreline variance, pursuant to KZC 141.70.3 and meet the criteria set forth in WAC 183-27-170. In addition, the following City submittal requirements and criteria must also be met:

a) Submittal Requirements – As part of the shoreline variance 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 wetland;
- 2) An analysis of whether any other proposed development 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.
- b. Decisional Criteria – The City shall may grant approval of a shoreline variance only if all of the following criteria are met:
- 1) No other permitted type of land use for the property with less impact on the sensitive area and associated buffer is feasible;
  - 2) The proposal has the minimum area of disturbance;
  - 3) The proposal maximizes the amount of existing tree canopy that is retained;
  - 4) 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;
  - 5) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;
  - 6) The proposal meets the mitigation, maintenance, and monitoring requirements of this Chapter;
  - 7) The granting of the shoreline variance will not confer on the applicant any special privilege that is denied by this Chapter to other lands, buildings, or structures under similar circumstances.

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 not 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-foot 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 or other hard stabilization measures 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. **General** - Uses, developments, activities and shoreline modifications within geologically hazardous areas must be limited to prevent significant adverse impacts to property or public improvements and/or result in a net loss of ecological functions and ecosystem-wide processes.
2. **Standards** –
  - a. New use, development or activities or creation of new lots that would cause foreseeable risk to people or improvement from geological conditions during the life of the use, development or activities shall not be allowed.
  - b. New use, development or activities that would require structural shoreline stabilization over the life of the development shall not be allowed, except for the limited instances where stabilization is necessary to protect allowed uses where no alternative locations are available.
  - c. For protection of existing primary structures, stabilization structures or measures may be allowed when no alternatives, including relocation or reconstruction of existing structures, are found to be feasible.

- d. Stabilization structures or measures must be consistent with KZC 83.300 for shoreline stabilization and with KZC 83.380 for no net loss of ecological function.
- e. Uses, developments, activities and shoreline modifications within geologically hazardous areas must be consistent with Chapter 85 KZC..
- f. 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. General - Uses, developments, activities and shoreline modifications within channel migration zone must be limited to prevent interference with the process of channel migration that may cause significant adverse impacts to property or public improvements and/or result in a net loss of ecological functions associated with critical areas.
- 2. Standards –
  - a. New uses, development or activities or expansions shall not be allowed when it would be reasonable foreseeable that the use, development or activities would require structural flood hazard reduction measures within the channel migration or floodway.
  - b. The uses and activities specifically identified in WAC 173-26-221(3)(c)(I) may be allowed within the channel migration zone if the City determines that they are appropriate and/or necessary.
  - c. Flood hazard measures shall not result in a net loss of ecological functions associated with critical areas. See KZC 83.360.
  - d. Flood hazard reduction measures shall only be allowed if it is determined that no other alternative is feasible to reduce flood hazard to existing development. Where feasible, non structural flood hazard reduction measures shall be utilized over structural measures.
  - e. When evaluating alternative flood control measures, structures in flood-prone areas shall be removed or relocated where feasible.
  - f. New structural flood hazard reduction measures may be allowed only when it can be demonstrated by scientific and engineering analysis that:
    - 1) They are necessary to protect existing development;
    - 2) Non structural measures are not feasible;
    - 3) Impacts to ecological functions and priority species and habitats can be successfully mitigated to assure no net loss; and
    - 4) Vegetation retention is provided consistent with KZC 83.400, KZC 83.500 and KZC 83.510 as applicable.
  - g. New structural flood hazard reduction measures shall be placed landward of wetlands and associated buffers areas, except for actions that increase ecological functions, such as wetland restoration.
  - h. For new structural flood hazard reduction measures, such as dikes and levees, improved public access walkways shall be provided, unless public access improvements would cause unavoidable health and safety hazards to the public, inherent or unavoidable security problems, or ecological impacts that are significant and cannot be mitigated.
  - i. Removal of gravel for flood management is not permitted, unless a biological and geomorphological study shows that extraction has a long-term benefit to flood hazard reduction, does not result in a new loss of ecological functions and is part of a comprehensive flood management solution.

- j. Where feasible, stream corridors shall be returned to more natural hydrological conditions, recognizing that seasonal flooding is an essential natural process. This includes removal of artificial restrictions to natural channel migration, restoration of off channel hydrological connections and returning stream processes to a more natural state were appropriate and feasible.
- k. Associated wetland restorations must be consistent with KZC 83.490, KZC 83.500 and KZC 83.510. Stream restoration or relocations must be consistent with KZC 90.
- l. The requirements of Chapter 21.56 KMC - Flood Damage Prevention, Chapter 15.52 KMC - Surface Water Management and the National Flood Insurance Program must be met.

**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;
    - 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 use 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 with riparian vegetation 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 walkway is subsequently found to have not been installed to the property line, the walkway 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 walkway, the blockage shall be removed.
  - 3) Nonconforming shoreline pedestrian access walkways 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, excluding detached dwelling unit and public park uses; 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 days following commencement of the emergency action.
    - 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-~~23~~7-040(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,