

General Regulations

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83.360 Shoreline Setbacks

1. Improvements permitted within the Shoreline Setback - See standards contained in KZC Section 83.180.4.
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.
 - ~~a.b.~~ The required shoreline setback may be reduced down to a minimum of twenty-five (25) feet when setback reduction impacts are mitigated using a combination of the mitigation options provided in the table below to achieve an equal or greater protection of lake ecological functions. The following standards shall apply to any reduced setback:
 - ~~4.i.~~ The minimum setback that may be approved through this provision is 25 feet. Any further setback reduction beyond that allotted in this Section shall require approval of a shoreline variance application.
 - ~~4.ii.~~ If a development activity is required to comply with the shoreline enhancement provisions of subsection 2 above, the water-related actions addressing shoreline softening below cannot be used to grant a shoreline reduction.
 - ~~4.iii.~~ All property owners who obtain approval for a reduction in the setback must comply with the best management practices contained in KZC Section 83.450.3.h addressing the use of fertilizer, herbicides and pesticides as needed to protect lake water quality.
 - ~~iv.~~ The City may accept previous actions that meet the provisions established in c) below as satisfying the requirements of this section, provided that the improvements were completed after December, 2006 and all other provisions, such as the agreement noted in subsection v) below are completed. The reduction allowance for previously completed reduction actions may only be applied once on the subject property.
 - ~~i.v.~~ All property owners who obtain approval for a reduction in the setback must record the final approved setback and corresponding conditions 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.
 - ~~b.c.~~ The shoreline setback may be reduced to no less than 25 feet in all cases by the following:

Shoreline Setback Reduction Alternatives

Reduction Mechanism		Reduction Allowance
Water Related Actions		
1	Removal of an existing <u>bulkhead-hard structural shoreline stabilization measure</u> covering at least 75 percent of the linear lake frontage which is located at, below, or within 5 feet landward of the lake's ordinary high water mark (OHWM) and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography, and beach/substrate composition;	Reduce required setback by 10 percentage points
2	Removal of an existing <u>hard structural shoreline stabilization measure bulkhead</u> covering at least 15 linear feet of the lake frontage which is located at, below, or within 5 feet landward of the lake's OHWM 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;	Reduce required setback by 7.5 percentage points
3	Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish <u>for a minimum of 25 feet in length</u> ; Opened watercourses must be provided with a native planted buffer at least five (5) feet wide on either side of the stream, and must not encumber adjacent properties without express written permission of the adjacent property owner. Opened watercourses must be designed by a qualified professional.	Reduce required setback by 5 percentage points
Upland Related Actions		
4	Installation of biofiltration/infiltration mechanisms such as bioswales, created and/or enhanced wetlands, or ponds that exceed standard stormwater requirements.	Reduce required setback by 2 percentage points
5	Use of "fully shielded cut-off" fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measure to conceal the light source from adjoining uses and direct the light toward the ground for any exterior light sources located on the west façade of the residence or other façades with exterior light sources are directed towards the lake. Increasing the width of the required landscape strip within the reduced shoreline setback so that the vegetated portion of the nearshore riparian area averages at least fifteen (15) feet in depth from the ordinary high water mark.	Reduce required setback by 2 percentage points
6	Installation of pervious material for all pollution generating surfaces such as a driveway, parking or private road.	Reduce required setback by 2 percentage points
7	Limiting the lawn area within the shoreline setback to no more than 50 percent of the reduced setback area. No more than 50 percent of the reduced setback area can be lawn.	Reduce required setback by 2 percentage points
8	Preserving or restoring at least 20 percent of the total lot area outside of the reduced setback and any critical areas and their associated buffers as native vegetation.	Reduce required setback by 2 percentage points

83.370 Shoreline Vegetation Management

Date of Draft: 3/23/09

- 1 Tree Retention. To maintain the ecological functions that trees provide to the shoreline environment, significant trees shall be retained as follows:
 - a. Tree removal on a property on which no development activity is proposed or in progress.
 - 1) Submittal Requirements – When proposing to trim or remove any tree located within the shoreline setback, the property owner must submit a Tree Removal/Pruning Request form report to the City containing the following:
 - i. 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.
 - ii. 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.
 - iii. If removal of a significant tree in the shoreline setback area is approved by the Planning Official, a three-for-one replacement is required. The required minimum size of the replacement trees shall be six (6) feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree. For required replacement trees, a planting plan showing location, size and species of the new trees is required.
 - iv. Tree replacement planting required by this section shall be performed in compliance with the applicable standards contained in this section, unless the applicant demonstrates that alternate measures or procedures will be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. Requests to use alternative measures and procedures shall be reviewed by the Planning Official or Urban Forester, who may approve, approve with conditions, or deny the request. The Planning Official or Urban Forester shall consider the existing tree canopy coverage on the property, ability to accommodate additional trees, given needed spacing requirements, and the ability of the alternative replanting to replace existing functions of the tree that was removed.
 - 2) Standards - Within the shoreline setback, existing significant trees shall be retained unless the tree is determined to be a hazard or nuisance tree.
 - i. Hazard Tree Criteria. 'Hazard Tree Criteria is assessed by 1) the presence of a defect as an indicator of potential tree failure, and 2) the presence of a moderate to high-use target area. Low-use target areas would include those areas which are infrequently or seldom used for any great length of time, such as an overflow parking area, natural or wilderness areas, etc. Moderate use would include those areas where people move through regularly, but do not stay, such as parks, parking lots, secondary roads, etc. High-use targets would include those areas that are frequently used by people, often for longer periods of time, or high volumes of people coming and going. Examples would include pick-up/drop off areas, visitor centers, residential buildings, main arterial roads, etc.'; A hazard tree must meet the following criteria:
 - (a) The tree must have a combination of structural defects and/or disease which makes it subject to a high probability of failure and is in proximity to moderate-high frequency of persons or property; and
 - (b) The hazard condition of the tree cannot be lessened with reasonable and proper arboricultural practices nor can the target be removed.
 - ii. Nuisance Tree Criteria. A nuisance tree must meet the following criteria:
 - (a) 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;
 - (b) Tree has been damaged by past maintenance practices, that cannot be corrected with proper arboricultural practices; or
 - (c) 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:
 - (i) Pruning of the crown or roots of the tree and/or small modifications to the site including but not limited to a driveway, parking lot, patio or sidewalk to alleviate the problem.
 - (ii) Pruning, bracing, or cabling to reconstruct a healthy crown.

- b. Tree removal on a property on which development activity is proposed or in progress.
- i. Submittal Requirements – When proposing a development activity on a lot containing trees within the shoreline setback, the following shall be required:
 - (a) 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.
 - (b) An arborist report stating the size (DBH), species, and assessment of health and determination of all trees located within the shoreline setback. This requirement may be waived by the Planning Official if it is determined that there are no trees within the shoreline setback that have the potential to be impacted by proposed development activity.
 - ii. Standards -
 - (a) 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 with 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.
 - (b) If removal of a significant tree in the shoreline setback area is approved by the Planning Official, a three-for-one replacement is required. The required minimum size of the replacement trees shall be (6) feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree.
 - (c) 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 native species selected from the Kirkland Native Plant List.
 - ~~(d)~~ Tree replacement planting required by this section shall be performed in compliance with the applicable standards contained in this section, unless the applicant demonstrates that alternate measures or procedures will be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. Requests to use alternative measures and procedures shall be reviewed by the Planning Official or Urban Forester, who may approve, approve with conditions, or deny the request. The Planning Official or Urban Forester shall consider the existing tree canopy coverage on the property, ability to accommodate additional trees, given needed spacing requirements, and the ability of the alternative replanting to replace existing functions of the tree that was removed.
- c. Tree Pruning - Non-destructive thinning of lateral branches to enhance views is allowed, consistent with the following standards:
- 1) The applicant must submit a Tree Removal/Pruning Request form to the City;
 - 2) but in no circumstance shall removal of more than half one-third (1/3) of the original live crown be permitted;
 - 3) Pruning does not include topping, stripping of branches or creation of an imbalanced canopy;
 - 4) Pruning should retain branches that overhang the water to the maximum extent possible; and
 - 5) Pruning does not directly impact the nearshore functions and values including fish and wildlife habitat.
- ~~e.d.~~ Required Landscaping – To maintain the ecological functions that trees provide to the shoreline environment, significant trees shall be retained as follows:
- 1) Minimum Landscape Standard Compliance - The applicant shall plant native vegetation, as necessary, 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 ordinary high water mark, but may be a minimum of five (5) feet wide to allow for variation in landscape bed shape and plant placement. For Detached, Attached or Stacked Dwelling Units within the Residential – M/H shoreline environment, the vegetated portion of the nearshore riparian area shall average fifteen (15) feet in depth from the ordinary high water mark. Restoration-Installation of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least three (3) trees per 100 linear feet of shoreline must be included in the plan. Plant materials must be native and selected from the Kirkland Native Plant List.
- 2) Use of Existing Vegetation - The City may 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 landscaping. The City may require the applicant to plant trees, shrubs, and groundcover according to the requirements of this section to supplement the existing vegetation in order to provide a buffer at least as effective as the required buffer.
 - 3) 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 section, and shall address the plant installation and maintenance requirements set forth in KZC Section 95.45. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown.
 - 4) Vegetation placement – Vegetation selection and placement shall comply with the following standards:
 - i. 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 waters of Lake Washington and the shoreline on the opposite side of the Lake at the time of planting or upon future growth.
 - ii. Vegetation may be selected and positioned to maintain private views of the water by clustering vegetation in a selected area, provided that the minimum landscape standard is met.
 - 4)5) Alternative Compliance. Landscaping required by this section shall be performed in compliance with the applicable standards contained in this section, unless the applicant demonstrates that alternate measures or procedures will be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining and improving shoreline ecological functions and processes. Requests to use alternative measures and procedures shall be reviewed by the Planning Official and City's shoreline consultant, who may approve, approve with conditions, or deny the request. The cost of producing and implementing the plan, as well as the review of the proposal by the City's consulting biologist, shall be borne by the applicant. Examples include but are not limited to:
 - i. Removal of an existing bulkheadhard structural shoreline stabilization measure covering at least 15 feet of the lake frontage which is located at, below, or within 5 feet landward of the lake's OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including creation of shallow-water beach habitat and beach/substrate composition.
 - ii. Setting back bulkheadhard structural shoreline stabilization measures or portions of bulkheadhard structural shoreline stabilization measures from the ordinary high water mark and subsequent restoration of the shoreline to a natural or semi-natural state, including creation of shallow-water beach habitat and beach/substrate composition.
 - iii. Use of low impact development techniques that demonstrate a significant reduction to stormwater runoff from the site, including but not limited to:

- (a) Use of pervious pavement/materials for all proposed hard surfaces, including but not limited to private driveways, patio, walkways, private roads, parking areas, and sidewalk areas;
 - (b) Reduction of total impervious surface on the subject property to a minimum of 15 percentage points less than allowed under standard lot coverage provisions;
 - (c) Direction of a minimum of 90 percent of the site's runoff to on-site biofiltration swale or raingardens;
 - (d) Use of vegetated roofs for a minimum of 70 percent of the effective roof area
Installation of a vegetated roof in accordance with the King County Surface Water Design Manual, Low Impact Development Technical Guidance Manual for Puget Sound or equivalent resource; or
 - (e) A combination of these or similar strategies.
- iv. Placing fill material for purposes of habitat enhancement (creation or restoration of nearshore shallow-water habitat) waterward of the ordinary high water mark.
 - v. Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish. Opened watercourses must be provided with a native planted buffer at least five (5) feet wide on either side of the stream and a minimum 20 foot wide structure setback measured from the ordinary high water mark of the stream, and must not encumber adjacent properties without express written permission of the adjacent property owner. Opened watercourses must be designed by a qualified professional with experience in stream restoration.

5)6) Responsibility for Regular Maintenance.

- i. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of landscaping required under this section. Plants that die must be replaced in kind.
- ii. All required landscaping shall be maintained throughout the life of the development. Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape plan and a recorded agreement to maintain and replace all landscaping that is required by the City.
- iii. ~~All required landscaping must be allowed to develop to its typical mature height and form. Pruning should be conducted only as needed to maintain health and vigor of the plant, and is expected to be only minimally required for native species.~~

83.390 View Corridors

- 1. General - Development within the shoreline area located west of Lake Washington Boulevard and Lake Street South shall include public view corridors which provides the public an unobstructed view of the water.
- 2. Standards -
 - a. For properties lying waterward of Lake Washington Boulevard and Lake Street South, a minimum view corridor of thirty percent of the average parcel width must be maintained. The intent of the corridor is to provide an unobstructed view from the adjacent public right-of-way to the waters of Lake Washington and the shoreline on the opposite side of the Lake and beyond. A view of the shoreline edge of the subject property should be provided if existing topography, vegetation, and other factors allow for this view to be retained.
 - b. Properties located in the UM Shoreline Environment where view corridors have been previously established under an approved Master Plan or zoning permit approved under the provisions of Chapter 152 KZC shall comply with the view corridor requirements as approved. Modifications to the proposed view corridor shall be considered under the standards established in the Master Plan or approved zoning permit.
- 3. Exceptions - The requirement for a view corridor does not apply to the following:
 - a. The following water-dependent uses:

- 1) Marina, but only piers, docks, and floats and temporary storage of boats undergoing service or repair
 - 2) Piers, docks, floats, boatlifts and canopies
 - 3) Tour Boat Facility, ferry terminal or water taxi, but not including permanent structures greater than 200 square feet in size housing commercial uses ancillary to the facility
 - 4) Moorage buoy
 - 5) Public Access Pier or Boardwalk
 - 6) Boat launch
- b. Public Parks
- c. Properties located in the UM Shoreline Environment within the Central Business District
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 property 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) Location of existing view corridors.
 - 2) Existing development or potential development on adjacent properties, given the topography, access and likely location of future improvements.
 - 3) The availability of actual views of the water and the potential of the lot for providing those views from the street.
 - 4) Location of existing sight-obscuring structures, parking areas or landscaping that are 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 Lake Washington and the shoreline on the opposite side of the Lake and beyond Lake Washington.
 - 3) Structures may be located in view corridors if the slope of the subject property permits full, unobstructed views of the waters of Lake Washington 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) Landscaping, provided it is designed not to obscure the view from the public right-of-way to the waters of Lake Washington and the shoreline on the opposite side of the Lake and beyond Lake Washington at the time of planting or upon future growth. The Planning Official shall determine appropriate landscaping in the event of a conflict between required site screening and view preservation.

- 6) Open fencing that is designed not to obscure the view from the public right-of-way to the waters of Lake Washington and the shoreline on the opposite side of the Lake and beyond Lake Washington.
- b. The following shall not be permitted within a view corridor:
 - 1) Structures, except as noted in subsection 5.a above.
 - 2) Sight obscuring fences.
 - 3) Landscaping that would screen the view of the shoreline at the time of planting or upon future growth.
6. Dedication - The applicant shall grant an easement or similar legal agreement, in a form acceptable to the City Attorney, and recorded with the King County Department of Records and Elections 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.

83.390 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 waterfront walkway and the public right-of-way serve to link the walkway with the larger 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 waterfront pedestrian corridor to the abutting right-of-way.
2. Public Pedestrian Walkway Location – The applicant shall locate public pedestrian walkways pursuant to the following standards:
 - a. The walkways shall be designed and sited to minimize the amount of native vegetation removal, impact to existing significant trees, soil disturbance, and disruption to existing habitat corridor structures and functions.
 - b. The walkways shall be located along the water's edge between the development and the shoreline at an average of 10 feet but no closer than 5 feet landward of the ordinary high water mark so that the walkway may meander and not be a straight line.
 - c. The public nature of the access shall be maximized by locating the walkways adjacent to other public areas including street-ends, waterways, parks, other public access and connecting trails.
 - d. The walkways shall maximize views of the water and sun exposure.
 - e. The walkways shall be located along pedestrian-oriented facades, as defined in KZC Chapter 92, where applicable and if feasible.
 - f. The walkways shall be situated so as to minimize significant grade changes and the need for stairways.

5. Exceptions and Modifications

- a. General – The provisions of this subsection establish under what circumstances the requirements of this section do not apply or may be modified.
- b. Exception
 - 1) The requirement for the dedication and improvement of public access does not apply to:
 - a) Development located within the Residential - L shoreline environment, except as follows:
 - i) Public entities, such as a government facility or public park, located within the Residential - L shoreline environment are required to provide public access pursuant to the provisions of this section.
 - b) Development located within the Natural shoreline environment.
 - c) Individual single-family residences and normal appurtenances associated with a single-family residence that is not part of a land division. For development involving land division, public pedestrian access is required.
- c. Modifications
 - 1) The Planning Official may require or grant a modification to the nature or extent of any required improvement for any of the following reasons:
 - a) If the presence of critical areas such as wetlands, streams, or geologically hazardous areas preclude the construction of the improvements as required.
 - b) To avoid interference with the operations of water-dependant uses, such as marinas.
 - c) If the property contains unique characteristics, such as size, configuration, topography, or location.
 - ~~e)d~~) If the access would create unavoidable health or safety hazards to the public.
 - 2) 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.
 - 3) Access from the right-of-way to the waterfront walkway may be waived by the Planning Official if the following applies:
 - a) If public access along the waterfront of the subject property can be reached from an adjoining property, and
 - b) If the adjoining property providing access to the waterfront 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; and
 - c) 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.

83.400 Standards for In-Water Activity

- 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. Projects involving in-water work must obtain all applicable state and federal permits, including those from the U.S. Army Corps of Engineers, Washington Department of Ecology, and Washington Department of Fish and Wildlife.
- d. Projects involving in-water work shall comply with timing restrictions as set forth by state and federal project approvals.
- e. Removal of existing structures shall be accomplished so the structure and associated material does not re-enter the lake.
- f. Waste material such as construction debris, silt, excess dirt or overburden resulting from in-water structure installation shall be deposited above the ordinary high water mark in an approved upland disposal site.
- g. Extreme care shall be taken to ensure that no petroleum products, hydraulic fluid, fresh 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.
- h. In-water work shall be conducted in a manner that causes little or no siltation to ~~adajeent~~adjacent areas. A sediment control curtain shall be deployed in those instances where siltation is expected. The curtain shall be maintained in a functional manner that contains suspended sediments during project installation.
- i. Any trenches, depressions, or holes created below the ordinary high water mark shall be backfilled prior to inundation by high water or wave action.
- j. 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.
- k. 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.
- l. All trash and unauthorized fill, including concrete blocks or pieces, bricks, asphalt, metal, treated wood, glass, and paper, below the ordinary high water mark shall be removed and deposited above the ordinary high water mark in an approved upland disposal location.
- m. If at any time, as a result of in-water work, fish are observed to be in distress or killed, or water quality problems develop, immediate notification shall be made to the Washington Department of Ecology.

83.410 Miscellaneous Standards

1. Screening of Storage and Service Areas

- a. Outdoor Use, Activity and Storage. Outdoor Use, Activity and Storage areas must comply with the following:
 - 1) Comply with the shoreline setback established for the use with which they are associated.
 - 2) Be located to minimize visibility from any street, Lake Washington, required public pedestrian walkway, public use area or public park.

- 3) 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.
 - 4) 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.
- b. Mechanical and similar equipment or appurtenances.
- 1) At-grade mechanical and similar equipment or appurtenances are not permitted within the shoreline setback.
 - 2) Rooftop appurtenances and at or below grade appurtenances shall be screened with landscaping 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.
- c. Garbage and trash receptacles. Garbage and recycling receptacles must comply with the following:
- 1) Comply with the shoreline setback established for the use with which they are associated.
 - 2) Be located to minimize visibility from any street, Lake Washington, required public pedestrian walkway, public use area or public parks.
 - 3) 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.
 - 4) 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 section.
2. Design Standards -
- a. 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:
- 1) Buildings are designed with windows that orient toward the shoreline.
 - 2) Buildings are designed to incorporate outdoor areas such as decks, patios, or viewing platforms that orient toward the shoreline.
 - 3) Buildings are designed with entrances along the waterfront façade and with connections between the building and required public pedestrian walkways.
 - 4) Service areas are located away from the shoreline.
 - 5) Site planning includes public use areas along waterfront public pedestrian walkways, if required under the provisions established in KZC 83.390, which will encourage pedestrian activity, including but not limited to:
 - i) Permanent seating areas;
 - ii) Landscaping, including trees to provide shade cover; and
 - iii) Trash receptacles.
 - 6) Exemptions – The following are exempt from the requirements of subsection 2.a:
 - a) Non-water oriented commercial and recreational uses which are located on the east side of Lake Washington Blvd. NE/Lake Street or on the east side of 98th Avenue NE.

- b) Non-water oriented commercial and recreational uses where there is an intervening development between the shoreline and the subject property are exempt from the requirements of subsection (3) and (5) above.
- b. Buildings located along the shoreline shall not incorporate materials which are reflective or mirrored.

83.420 Parking

1. General -

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

2. Number of Parking Spaces -

- a. All uses must provide sufficient off-street parking spaces. The required number of parking stalls established in KZC Chapter 105, KZC 50.60 and in the applicable use zone charts shall be met.

3. Parking Location -

- a. Intent – To reduce the negative impacts of parking and circulation facilities on visible 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 83.370. 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 landscaping.
 - iii) The structure is designed to minimize impacts to public access and views to Lake Washington 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 landscaping and/or building surface treatment to provide an appearance comparable to the rest 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. General
 - 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, minimally, composed of a different material from the parking lot.
 - 2) Pedestrian connections must be at least five 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 that are 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 that is visible from a required view corridor, or is facing a public pedestrian walkway, public use area, or public park must incorporate landscaping and/or building surface treatment to mitigate the visual impacts of the structured parking.

83.430 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. 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, provided that:
 - a) 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.
 - b) 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.
 - c) The sign shall be affixed to a pier or wall-mounted. The maximum permitted height of a freestanding sign is five feet above the surface of the pier. A wall-mounted sign shall not project above the roofline of the building to which they are attached.
 - 2) Boat traffic signs, directional signs and signs displaying a public service message installed by a governmental agency.
 - 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.
 - c. Signs shall comply with the shoreline setback standards contained in KZC 83.180.

83.440 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 glare-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 submission and lighting standards established in this section:
 - 1) ~~Development of a detached dwelling unit or associated appurtenances;~~
 - 2) Emergency lighting required for public safety;
 - 3) Lighting for public rights-of-way;
 - 4) Outdoor lighting for temporary or periodic events (e.g. community events at public parks);
 - 5) Seasonal decoration lighting; and
 - 6) Sign lighting, which is governed by KZC 83.430.
 - b. The following development activities are exempt from the submission standards established in ~~this section (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, docks, floats, boatlifts and canopies;
 - ~~3)~~ Public Access Pier or Boardwalk; and
 - ~~4)~~ Moorage buoy.
3. Submission Requirements - All development proposed 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 illuminance 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 –

~~40)1)~~ All exterior building-mounted and ground-mounted light fixtures shall be directed downward and use “fully shielded cut off” fixtures as defined by the Illuminating Engineering Society of North America (IESNA), or other appropriate measure to conceal the light source from adjoining uses and direct the light toward the ground. For detached dwelling unit or associated appurtenances, this requirement shall apply to any light fixtures which are directed towards or face Lake Washington.

~~41)2)~~ Exterior lighting mounted on piers or illuminating piers and water-dependent uses located at the shoreline edge shall be at ground or dock level, and be directed away from adjacent properties and the water.

~~42)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 –

~~43)1)~~ Exterior lighting installations shall be designed to avoid harsh contrasts in lighting levels.

~~44)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.

~~45)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.

~~46)4)~~ Exterior lighting shall not exceed a strength of 1 foot-candles at the water surface of Lake Washington, as measured waterward of the ordinary high water mark.

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 –

~~47)1)~~ Illuminance of a building façade to enhance architectural features is not permitted.

~~48)2)~~ Where practical, 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.

5. Compliance – Exterior lighting in shoreline jurisdiction must be brought into compliance with the requirements of this section in any of the following situations:

a. Replacement – The shielding requirements of subsection (4)(a)(1) of this section shall be complied with when any nonconforming light fixture is replaced or moved.

b. Full Compliance – All other requirements of subsection (4) of this section shall be complied with when there is an increase in gross floor area of more than 50 percent to any structure on the subject property.

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 measure; 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, at minimum, 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 utilize 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. All types of BMPs require regular maintenance to continue to function as intended.
 - c. Low Impact Development (LID) techniques shall be considered and implemented to the greatest extent practicable. 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:
 - 1) Preservation of natural hydrology.
 - 2) Reduction of impervious surfaces.
 - 3) Treatment of stormwater in numerous small, decentralized structures.
 - 4) Use of natural topography for drainageways and storage areas.
 - 5) Preservation of portions of the site in undisturbed, natural conditions.
 - 6) Reduction of the use of piped systems. Whenever possible, site design should use multifunctional open drainage systems such as vegetated swales or filter strips which also help to fulfill landscaping and open space requirements.
 - 7) Use of environmentally sensitive site design and green building construction that reduces runoff from structures, such as green roofs.
 - 8) Other low impact development techniques as approved by the Public Works Official.
 - d. New outfalls or discharge pipes to Lake Washington shall be avoided, where possible. 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 ordinary high water mark.
 - e. 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 such as structures and/or a manual of practices designed to treat or prevent storm water pollution arising from specific activities expected to occur on the site. Examples of such specific activities include, but are not limited to, carwashing at multifamily residential sites and oil storage at marinas providing service and repair. Criteria for development and submittal of designs and plans for such BMPs are included in the standard plans.

- f. 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 City of Kirkland's Public Works Storm/Surface Water Division 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.
- g. 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.
- h. 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.
 - ~~1) Within the shoreline setback, application of pesticides, herbicides, or fertilizers shall be prohibited, unless specifically authorized in an approved mitigation plan or otherwise authorized in writing by the Planning Official.—~~
 - ~~2) Pesticides, herbicides, or fertilizers used outside of the shoreline setback shall be applied in a manner as to prevent their transmittal into Lake Washington.—The direct runoff of chemical-laden waters into Lake Washington is prohibited.~~
 - 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 agencies, including the Washington State Department of Agriculture, Department of Ecology, Department of Fish and Wildlife or the Federal Environmental Protection Agency.
 - 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 Kirkland Planning Department prior to the application.

Critical Areas – General Standards

- 1. The provisions of this Chapter do not extend the shoreline jurisdiction beyond the limits specified in this SMP. 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 activity 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 section.
- 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.
- 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 utilized mitigation sequencing to avoid, minimize, and mitigate impacts to critical areas and associated buffers. The applicant should seek to avoid, minimize and mitigate overall impacts based on the functions and values of all of the relevant critical areas.

- b. In addition to the above steps, the specific development standards, permitted alteration requirements, and mitigation requirements of this chapter and elsewhere in the KZC apply.
- c. In determining the extent to which the proposal should 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 section as a part of the critical areas review conducted pursuant to KZC **XXX**.

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~~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 is considered a nuisance or hazard in a critical area or its buffer, the priority action is to create a "snag" or wildlife tree with the subject tree. 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 which 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 nor can the target be removed.
 - b) Nuisance Tree Criteria. A nuisance tree must meet the following criteria:
 - i) 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) 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:
 1. Pruning of the crown or roots of the tree and/or small modifications to the site including but not limited to a driveway, parking lot, patio or sidewalk to alleviate the problem.
 2. 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 six feet in height in close proximity to where the removed tree was located. Selection of native species and timing of installation shall be coordinated with the Planning Official.

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. Seed source must be as local as possible, 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 its entry into waterways and wetlands and minimize its 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.

83.470 Wetlands

1. Applicability – The following provisions shall apply to wetlands and wetland buffers located within the shoreline jurisdiction, in replace 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, which 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. 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 (2) 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 wetland 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 90.40 to determine the appropriate buffer width. Ecology’s rating system and the corresponding buffers only apply to those wetlands and buffers which are located in shoreline jurisdiction.]

a-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 wetland consultant. 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 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 83.470.4 through 83.470.10. See also KZC 83.460, Trees in Critical Areas or Critical Area Buffers; and KZC 83.460, 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
Category I	
Natural Heritage Wetlands	215 feet
Bog	215 feet
Habitat score ¹ from 29 to 36 points	225 feet
Habitat score from 20 to 28 points	150 feet
Other Category I wetlands	125 feet
Category II	
Habitat score from 29 to 36 points	200 feet
Habitat score from 20 to 28 points	125 feet
Other Category II wetlands	100 feet
Category III	
Habitat score from 20 to 28 points	125 feet
Other Category III wetlands	75 feet
Category IV	
	50 feet

¹Habitat 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* <http://www.metrokc.gov/ddes/cao/PDFs04ExecProp/BAS-Chap9-04.pdf>.

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:

- 8.1)** Does not provide additional protection of the wetland from the proposed development; and

- ~~9)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 within this setback minor improvements which 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 Outfalls – 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 surface discharge of storm water through the buffer would clearly pose a threat to slope stability, and if the storm water outfall will not:
- ~~6)1~~ Adversely affect water quality;
 - ~~7)2~~ Adversely affect fish, wildlife, or their habitat;
 - ~~8)3~~ Adversely affect drainage or storm water detention capabilities;
 - ~~9)4~~ Lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and
 - ~~10)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 wetland or wetland buffer by meeting the following design standards:
- ~~11)6~~ Catch basins must be installed as far as feasible from the buffer boundary.
 - ~~12)7~~ Outfalls must be designed to reduce the chance of adverse impacts as a result of concentrated discharges from pipe systems. This may include:
 - ~~1) a~~ Installation of the discharge end as far as feasible from the sensitive area; and
 - ~~2) b~~ Use of appropriate energy dissipation at the discharge end.
- d. Water Quality Facilities – Detention and water quality treatment devices, and other similar facilities as determined by the City, shall not be located within the wetland buffers or buffer setbacks of this section except as provided below. Water quality facilities, as determined by the City, may be located within the wetland buffers of subsection 85.450.4 of this section. 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 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) Its 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 practicable or feasible alternative proposal that results in less impact to the buffer.

e.b. Utilities and Rights-of-Way – Provided that activities will not increase the impervious area or reduce flood storage capacity, the following work may only be allowed in critical areas and their buffers subject to City review after appropriate mitigation sequencing per KZC 83.460.2 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.
- 4) All affected critical areas and buffers will 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 (a) of this section. These minor improvements shall be located within the outer one-half of the sensitive area buffer, except where approved stream crossings are made. The City may only approve a proposal to construct a minor improvement within an environmentally sensitive area buffer if:

83.3941) It will not adversely affect water quality;

83.3922) It will not adversely affect fish, wildlife, or their habitat;

83.3933) It will not adversely affect drainage or storm water detention capabilities;

83.3944) It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;

83.3955) 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

83.3966) It supports public or private shoreline access.

The City may require the applicant to submit a report prepared by a qualified professional which 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, as approved by the Planning Official and consistent with City standards, along the upland boundary of the entire

wetland 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 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 -

a. 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 noted in subsection b ~~and e~~.

~~b.~~ All Wetland Modification or Wetland Buffer Modification affecting > 25% of the standard buffer require a Shoreline Variance pursuant to Process IIA, described in Chapter 141, except as follows:

~~i.~~ Development activity or land surface modification approved under subsection 4 above (Wetland Buffers and Setbacks) or subsection 10 (Wetland Restoration) below, and

~~e., except for development activity or land surface modification approved under subsection 4 above (Wetland Buffers and Setbacks) or subsection 10 (Wetland Restoration) below, require a Shoreline Variance pursuant to Process IIA, described in Chapter 141.~~

2) Applicants for a detached dwelling who are unable to comply with the specific standards of this section may seek approval pursuant to the following standards and procedures:

i. 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 management 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.

ii. Submittal Requirements – As part of the reasonable use request, in addition to submitting an application, 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:

a) A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.470(3) for a wetland or based on the definitions contained in this chapter for a stream;

b) An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is possible;

c) Sensitive site design and construction staging of the proposal so that the development will have the least practicable impact on the sensitive area and sensitive area buffer;

d) A description of the area of the site which is within the sensitive area or within the setbacks or buffers required by this chapter;

e) 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;

- f) An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;
- g) How the proposal minimizes to the greatest extent possible net loss of sensitive area and/or sensitive area buffer functions;
- h) Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible;
- i) Information specified in KZC 83.470(8); and
- j) Such other information or studies as the Planning Official may reasonably require.

iii. Decisional Criteria – The City shall grant approvals for reasonable use exceptions only if all of the following criteria are met:

- a) That 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 Environment shall be one single-family dwelling;
- b) That 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;
- c) 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 landscaping, shall not exceed 3,000 square feet. The amount of allowable disturbance shall be that which will have the least practicable impact on the sensitive area and the sensitive area buffer given the characteristics and context of the subject property, sensitive area, and buffer;
- d) The applicant shall pay for a qualified professional to help with the City's determination of the appropriate limit for disturbance;
- e) The proposal is compatible in design, 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;
- f) The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent possible net loss of sensitive area functions and values;
- g) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;
- h) The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter;
- i) The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in this chapter or its predecessor; and
- j) 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.

iv. Modifications and Conditions – The City may approve reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to

five 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 the exception.

—In the Natural Environment, applicants for a detached dwelling who are unable to comply with the specific standards of this section may seek approval pursuant to the following standards and procedures:

—Process—If the strict application of this section would preclude all reasonable use of a site, an owner of real property may apply for a reasonable use exception to this chapter.

—The application shall be considered under Process IIA of Chapter 150 KZC; provided, that for a single-family development proposal which does not exceed a total of 3,000 square feet of site disturbance, and does not encroach into the sensitive area, but only the associated buffer, the application shall be considered pursuant to subsection (7) of this section, Reasonable Use Process: Administrative Alternative.

—In addition, the application shall be processed as a Shoreline Conditional Use Permit under the provisions of Chapter 141 KZC and WAC 173-27.

—Submittal Requirements—As part of the reasonable use request, in addition to submitting an application, 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:

—A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.450(3) for a wetland or based on the definitions contained in this chapter for a stream;

—An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is possible;

—Sensitive site design and construction staging of the proposal so that the development will have the least practicable impact on the sensitive area and sensitive area buffer;

—A description of the area of the site which is within the sensitive area or within the setbacks or buffers required by this chapter;

—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;

—An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;

—How the proposal minimizes to the greatest extent possible net loss of sensitive area functions;

~~Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible; and~~

~~Such other information or studies as the Planning Official may reasonably require.~~

~~Decisional Criteria — The City shall grant applications for reasonable use exceptions only if all of the following criteria are met:~~

~~That 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 a residential zone shall be one single family dwelling and in a commercial or industrial zone shall be an office use;~~

~~That 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;~~

~~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 landscaping, shall not exceed the following limits:~~

~~If the subject property contains 6,000 square feet of area or less, no more than 50 percent of the site may be disturbed;~~

~~If the subject property contains more than 6,000 square feet but less than 30,000 square feet, no more than 3,000 square feet may be disturbed;~~

~~For properties containing 30,000 square feet or more, the maximum allowable site disturbance shall be between 3,000 square feet and 10 percent of the lot area, to be determined by the City on a case-by-case basis;~~

~~The amount of allowable disturbance shall be that which will have the least practicable impact on the sensitive area and the sensitive area buffer given the characteristics and context of the subject property, sensitive area, and buffer;~~

~~The applicant shall pay for a qualified professional to help with the City's determination of the appropriate limit for disturbance;~~

~~The proposal is compatible in design, 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;~~

~~The proposal utilizes to the maximum extent possible innovative construction, design, and development~~

~~techniques, including pervious surfaces, which minimize to the greatest extent possible net loss of sensitive area functions and values;~~

~~—The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;~~

~~—The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter;~~

~~—The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in this chapter or its predecessor; and~~

~~—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.~~

~~1) Modifications and Conditions — The City may approve reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to five feet to reduce the impact on the sensitive area and 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 the exception.~~

~~— Process: Administrative Alternative — If, in order to provide reasonable use of a site, the standards of this chapter need to be modified and the proposed improvement does not exceed a total of 3,000 square feet of site impact, including but not limited to structures, paved areas, landscaping, decks, driveways, utility installation, and grading, the Planning Director is authorized to approve a reasonable use exception subject to subsections (4) and (5) of this section and considered under Process I of Chapter 145 KZC. Administrative approval shall also be subject to the following limitations:~~

~~— 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 encroachment of the proposed development shall only be into the sensitive area buffer, not the sensitive area.~~

~~4)~~

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 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 83.470(3) for a wetland or based on the definitions contained in this chapter for a stream;
- 2) An analysis of the mitigation sequencing as outlined in KZC 83.460.2;
- 3) Sensitive site design and construction staging of the proposal so that the development will have the least practicable 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 development proposed would have on the sensitive area and the sensitive area buffer;
- 7) How the proposal minimizes to the greatest extent possible net loss of sensitive area and/or sensitive area buffer functions;
- 8) Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible;
- 9) 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.
- 10) Information specified in KZC 83.470(8);
- 11) An evaluation of the project's consistency with the shoreline variance criteria contained in WAC 173-27-170; and
- 12) 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:~~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 wetland consultant. The report shall contain all information specified in KZC 83.450(c) as well as 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. The City may only approve an improvement or land surface modification in a wetland if:~~

- ~~a.~~1) The project demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.460.2;
- ~~b.~~2) It will not adversely affect water quality;
- ~~c.~~3) It will not adversely affect fish, wildlife, or their habitat;
- ~~d.~~4) It will not have an adverse effect on drainage and/or storm water detention capabilities;
- ~~e.~~5) It will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions;
- ~~f.~~6) It will not be materially detrimental to any other property or the City as a whole;

- ~~g.7)~~ Compensatory mitigation is provided in accordance with the table in subsection ~~(e)8~~ of this section;
- ~~h.8)~~ Fill material does not contain organic or inorganic material that would be detrimental to water quality or fish and wildlife habitat;
- ~~i.9)~~ All exposed areas are stabilized with vegetation normally associated with native wetlands and/or buffers, as appropriate; and
- ~~j.10)~~ There is no practicable or feasible alternative development proposal that results in less impact to the wetland and its buffer.

10-8. Compensatory Mitigation – A modification may only be approved after the applicant has demonstrated consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.460.2. 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 ¹	Re-establishment or Creation (R/C) and Rehabilitation (RH) ¹	Re-establishment or Creation (R/C) and Enhancement (E) ¹	Enhancement Only ¹
All Category IV	1.5:1	3:1	1:1 R/C and 1:1RH	1:1 R/C and 2:1 E	6:1
All Category III	2:1	4:1	1:1 R/C and 2:1 RH	1:1 R/C and 4:1 E	8:1
Category II	3:1	6:1	1:1 R/C and 4:1 RH	1:1 R/C and 8:1 E	12:1
Category I Forested	6:1	12:1	1:1 R/C and 10:1 RH	1:1 R/C and 20:1 E	24:1
Category I - based on score for functions	4:1	8:1	1:1 R/C and 6:1 RH	1:1 R/C and 12:1 E	16:1
Category I Natural Heritage site	Not allowed	6:1 Rehabilitation of a Natural Heritage site	Not allowed	Not allowed	Case-by-case

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

On-site mitigation is presumed to be preferable to off-site mitigation. 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 Department of Elections and Records, 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.

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:

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

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

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

9. Wetland Buffer Modification

- a. Departures from the standard buffer requirements shall be approved only after the applicant has demonstrated consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.460.2.
- b. Approved departures from the standard buffer requirements of KZC 83.470.4(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 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 83.470.4(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. Buffer widths may be decreased if an applicant receives a modification request approval.

5-1) 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 83.470.4(a). Buffers may not be reduced at any point by more than twenty-five percent (25%) of the standards specified in KZC 83.470.(a). 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 83.470.5(d). Buffers may not be reduced at any point by more than twenty-five (25) percent of the standards in KZC 83.470.3(a). Buffer reductions of more than twenty-five (25) percent approved through a Shoreline Variance will be assumed to have direct wetland impacts that must be compensated for as described above under KZC 83.470.8.

6-2) 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 83.460.2.
- 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 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 wetland 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 (d)(2) of this section.

- 10. 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 83.460, Trees in Critical Areas or Critical Area Buffers; and KZC 83.460, 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 wetland restoration is required by the City, the requirements of KZC 83.470.8, Compensatory Mitigation, shall apply.
- 11. 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.

83.480 Streams

- 1. ~~4.~~ Applicability – The following provisions shall apply to streams and stream buffers located within the shoreline jurisdiction, in replace 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, which 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 may occur and no improvements may be located in a stream or its buffer except as provided in KZC 83.480.3 through 83.480.11.
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 two 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

i.a. Stream Buffers – No land surface modification shall occur and no improvement may be located in a stream or its buffer, except as provided in this section. See also KZC 83.460(1), Trees in Critical Areas or Critical Area Buffers; and KZC 83.460(2), Mitigation and Restoration Plantings in Critical Areas and Critical Area Buffers. Required, or standard, buffers for streams are as follows:

Stream Buffers

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

Stream buffers shall be measured from each side of the ordinary high water mark 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 which 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 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.

ii.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 which 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.

iii.c. Storm Water Outfalls – 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 Public Works and Planning Officials both determine, 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;
- 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 wetland or wetland buffer by meeting the following design standards:

~~1~~6) Catch basins must be installed as far as feasible from the buffer boundary.

~~2~~7) Outfalls must be designed to reduce the chance of adverse impacts as a result of concentrated discharges from pipe systems. This may include:

~~a~~a) Installation of the discharge end as far as feasible from the sensitive area, and

~~b~~b) Use of appropriate energy dissipation at the discharge end.

iv.d. Water Quality Facilities – Detention and water quality treatment devices, and other similar facilities as determined by the City, shall not be located within the stream buffers or buffer setbacks of this section except as provided below. 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:

~~a~~1) It will not adversely affect water quality;

~~b~~2) It will not adversely affect fish, wildlife, or their habitat;

~~c~~3) It will not adversely affect drainage or storm water detention capabilities;

~~d~~4) It will not lead to unstable earth conditions or create erosion hazards or contribute to scouring actions;

~~e~~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;

~~f~~6) The existing buffer is already degraded as determined by a qualified professional;

~~g~~7) Its 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

~~h~~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):

- ~~k)9)~~ The project includes enhancement of the entire on-site buffer;
- ~~h)10)~~ The project would provide an exceptional ecological benefit off-site;
- ~~m)11)~~ The water quality facility, once installed, would not require any further disturbance or intrusion into the buffer; and
- ~~n)12)~~ There is no practicable or 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 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 83.460.2 has been considered and implemented:

- ~~b)1)~~ All utility work in improved City rights-of-way;
- ~~c)2)~~ All normal and routine maintenance, operation and reconstruction of existing roads, streets, and associated rights-of-way and structures; and
- ~~d)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 will 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 83.460.4. These minor improvements shall be located within the outer one-half of the sensitive area buffer, except where approved stream crossings are made. The City may only approve a proposal to construct a minor improvement within a sensitive area buffer if:

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

The City may require the applicant to submit a report prepared by a qualified professional which 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 six-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 -

a. 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 noted under subsection b ~~and e~~.

b. All Stream Relocation or Modification or Stream Buffer Modification affecting > one-third (1/3) of the standard buffer require a Shoreline Variance pursuant to Process IIA, described in Chapter 141, except as follows:

±Development activity or land surface modification approved under subsection 4 above (Stream Buffer and Setback) or subsection 10 (Stream Crossings) and 11 (Stream Rehabilitation) below.

i. Applicants for a detached dwelling who are unable to comply with the specific standards of this section may seek approval pursuant to the following standards and procedures:

1. 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 management area applies to lots that are significantly constrained by critical area and critical area buffers.

2. Submittal Requirements – As part of the reasonable use request, in addition to submitting an application, 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:

a) A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.480(3) for a wetland or based on the definitions contained in this chapter for a stream;

b) An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is possible;

c) Sensitive site design and construction staging of the proposal so that the development will have the least practicable impact on the sensitive area and sensitive area buffer;

d) A description of the area of the site which is within the sensitive area or within the setbacks or buffers required by this chapter;

e) 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;

f) An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;

g) How the proposal minimizes to the greatest extent possible net loss of sensitive area and/or sensitive area buffer functions;

h) Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible;

- i) Information specified in KZC 83.470(8); and
 - j) Such other information or studies as the Planning Official may reasonably require.
3. Decisional Criteria – The City shall grant approvals for reasonable use exceptions only if all of the following criteria are met:
- a) That 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 Environment shall be one single-family dwelling;
 - b) That 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;
 - c) 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 landscaping, shall not exceed 3,000 square feet. The amount of allowable disturbance shall be that which will have the least practicable impact on the sensitive area and the sensitive area buffer given the characteristics and context of the subject property, sensitive area, and buffer;
 - d) The applicant shall pay for a qualified professional to help with the City's determination of the appropriate limit for disturbance;
 - e) The proposal is compatible in design, 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;
 - f) The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent possible net loss of sensitive area functions and values;
 - g) The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;
 - h) The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter;
 - i) The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in this chapter or its predecessor; and
 - j) 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.
- iv. Modifications and Conditions – The City may approve reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to five 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 the exception. ~~In the Natural~~

~~Environment, applicants for a detached dwelling who are unable to comply with the specific standards of this section may seek approval pursuant to the following standards and procedures:~~

~~—Process— If the strict application of this section would preclude all reasonable use of a site, an owner of real property may apply for a reasonable use exception to this chapter.~~

~~—The application shall be considered under Process IIA of Chapter 150-KZC; provided, that for a single-family development proposal which does not exceed a total of 3,000 square feet of site disturbance, and does not encroach into the sensitive area, but only the associated buffer, the application shall be considered pursuant to subsection (7) of this section, Reasonable Use Process: Administrative Alternative.~~

~~In addition, the application shall be processed as a Shoreline Conditional Use Permit under the provisions of Chapter 141 KZC and WAC 173-27.~~

~~Submittal Requirements— As part of the reasonable use request, in addition to submitting an application, 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:~~

~~A determination and delineation of the sensitive area and sensitive area buffer containing all the information specified in KZC 83.450(3) for a wetland or based on the definitions contained in this chapter for a stream;~~

~~An analysis of whether any other reasonable use with less impact on the sensitive area and sensitive area buffer is possible;~~

~~Sensitive site design and construction staging of the proposal so that the development will have the least practicable impact on the sensitive area and sensitive area buffer;~~

~~A description of the area of the site which is within the sensitive area or within the setbacks or buffers required by this chapter;~~

~~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;~~

~~An analysis of the impact that the amount of development proposed would have on the sensitive area and the sensitive area buffer;~~

~~How the proposal minimizes to the greatest extent possible net loss of sensitive area functions;~~

~~Whether the improvement is located away from the sensitive area and the sensitive area buffer to the greatest extent possible; and~~

~~Such other information or studies as the Planning Official may reasonably require.~~

~~Decisional Criteria— The City shall grant applications for reasonable use exceptions only if all of the following criteria are met:~~

~~That 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 a residential zone shall be one single family dwelling and in a commercial or industrial zone shall be an office use;~~

~~That 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;~~

~~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 landscaping, shall not exceed the following limits:~~

~~If the subject property contains 6,000 square feet of area or less, no more than 50 percent of the site may be disturbed.~~

~~If the subject property contains more than 6,000 square feet but less than 30,000 square feet, no more than 3,000 square feet may be disturbed.~~

~~For properties containing 30,000 square feet or more, the maximum allowable site disturbance shall be between 3,000 square feet and 10 percent of the lot area, to be determined by the City on a case-by-case basis.~~

~~The amount of allowable disturbance shall be that which will have the least practicable impact on the sensitive area and the sensitive area buffer given the characteristics and context of the subject property, sensitive area, and buffer.~~

~~The applicant shall pay for a qualified professional to help with the City's determination of the appropriate limit for disturbance;~~

~~The proposal is compatible in design, 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;~~

~~The proposal utilizes to the maximum extent possible innovative construction, design, and development techniques, including pervious surfaces, which minimize to the greatest extent possible net loss of sensitive area functions and values;~~

~~The proposed development does not pose an unacceptable threat to the public health, safety, or welfare on or off the property;~~

~~The proposal meets the mitigation, maintenance, and monitoring requirements of this chapter;~~

~~The inability to derive reasonable use is not the result of actions by the applicant after the effective date of the ordinance codified in this chapter or its predecessor; and~~

~~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.~~

~~Modifications and Conditions — The City may approve reduction in required yards or buffer setbacks and may allow the maximum height of structures to be increased up to five feet to reduce the impact on the sensitive area and 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 the exception.~~

~~Process: Administrative Alternative – If, in order to provide reasonable use of a site, the standards of this chapter need to be modified and the proposed improvement does not exceed a total of 3,000 square feet of site impact, including but not limited to structures, paved areas, landscaping, decks, driveways, utility installation, and grading, the Planning Director is authorized to approve a reasonable use exception subject to subsections (4) and (5) of this section and considered under Process I of Chapter 145 KZC. Administrative approval shall also be subject to the following limitations:~~

~~1) 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.~~

~~2) The encroachment of the proposed development shall only be into the sensitive area buffer, not the sensitive area.~~

e.

7. Stream Buffer Modification

~~1) a.~~ Approved departures from the standard buffer requirements of KZC 83.480.4(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.

~~2) b.~~ 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.

~~a.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 83.480.4(a). Buffers may not be reduced at any point by more than one-third (1/3) of the standards in KZC 83.480.4(a). Buffer averaging calculations shall only consider the subject property.

~~b.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 83.470.8. Buffers may not be reduced at any point by more than one-third (1/3) of the standards in KZC 83.480.4(a).

a. Decisional Criteria – An improvement or land surface modification may only be approved in a stream buffer only if:

~~a.1)~~ The project demonstrates consideration and implementation of appropriate mitigation sequencing as outlined in KZC 83.460.2.

~~b.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);

- ~~e.3)~~ It will not adversely affect water quality;
- ~~d.4)~~ It will not adversely affect fish, wildlife, or their habitat;
- ~~e.5)~~ It will not have an adverse effect on drainage and/or storm water detention capabilities;
- ~~f.6)~~ It will not lead to unstable earth conditions or create an erosion hazard or contribute to scouring actions;
- ~~g.7)~~ It will not be materially detrimental to any other property or the City as a whole;
- ~~h.8)~~ Fill material does not contain organic or inorganic material that would be detrimental to water quality or to fish, wildlife, or their habitat;
- ~~i.9)~~ All exposed areas are stabilized with vegetation normally associated with native stream buffers, as appropriate; and
- ~~j.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 wetland 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 ten criteria listed in this subsection.

8. 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 may not be considered.

A proposal to relocate or modify a Class A stream may only be approved only 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 Department of Elections and Records, consenting to the sensitive area and/or buffer creation or increase on such property.

Prior to the City's 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:

- ~~i.a.)~~ A topographic survey showing existing and proposed topography and improvements;
- ~~ii.b.)~~ The filling and revegetation of the existing stream channel;
- ~~iii.c.)~~ A proposed phasing plan specifying time of year for all project phases;
- ~~iv.d.)~~ The ability of the new stream channel to accommodate flow and velocity of 100-year storm events; and
- ~~v.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 83.470.8.

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.

9. Bulkheads in Streams - Bulkheads are not permitted along a stream, except as provided in this subsection. The City shall allow a bulkhead to be constructed only if:

~~i.a.~~ It is not located within a wetland or between a wetland and a stream;

~~ii.b.~~ It is needed to prevent significant erosion;

~~iii.c.~~ The use of vegetation and/or other biological materials would not sufficiently stabilize the stream bank to prevent significant erosion;

~~iv.d.~~ 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:

~~2)1)~~ There will be no adverse impact to water quality;

~~3)2)~~ There will be no adverse impact to fish, wildlife, and their habitat;

~~4)3)~~ There will be no increase in the velocity of stream flow, unless approved by the City to improve fish habitat;

~~5)4)~~ There will be no decrease in flood storage volumes;

~~6)5)~~ Neither the installation, existence, nor operation of the bulkhead will lead to unstable earth conditions or create erosion hazards or contribute to scouring actions; and

~~7)6)~~ Neither the installation, existence, nor operation of the bulkhead will be detrimental to any other property or the City as a whole; and

~~v.e.~~ The Washington Department of Fish and Wildlife issues a Hydraulic Project Approval for the project.

The bulkhead shall be designed consistent with Washington Department of Fish and Wildlife's *Integrated Streambank Protection Guidelines* (2003, or as revised). The bulkhead

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.

10. 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:

i.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;

ii.b. The Washington Department of Fish and Wildlife issues a Hydraulic Project Approval for the project; and

iii.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) Neither 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) Neither the installation, existence, nor operation of the stream crossing will be detrimental to any other property or to the City as a whole.

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 culvert maintenance agreement under KZC 90.145 for continued maintenance of the stream crossing.

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 above criteria and the following additional criteria:

- 7) The culvert must be designed consistent with Washington Department of Fish and Wildlife's *Design of Road Culverts for Fish Passage* (2003, or as revised).

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.

11. 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 83.460, Trees in Critical Areas or Critical Area Buffers; and KZC 83.460, 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 stream rehabilitation is required by the City, the mitigation plan and monitoring requirements of KZC 83.470.8, shall apply.

83.490 Geologically hazardous areas.

1. The City of Kirkland Geologically Hazardous Area Regulations, as codified in Chapter 85 KZC (dated XX, Ordinance # XX), are herein incorporated into this master program.
2. In addition to the required information contained in KZC 85.15.3, the geotechnical report shall also contain any additional information specified under the definition of Geotechnical Report contained in KZC Section 83.80.

~~83.504~~83.500 Flood Hazard Reduction.

1. The City of Kirkland Flood Damage Regulations, as codified in Chapter 21.56 KMC (dated XX, Ordinance # XX), are herein incorporated into this master program.

83.510 Archaeological and Historic Resources

1. General - Uses, developments and activities on sites of historic or archeological significance or sites containing things 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 will 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 possible 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 2744 (Indian Graves and Records) and RCW 2753 (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 which are registered on the State or National Historic Register are subject to review under the National and State Registers' review process.

83.520 Nonconformances

Where nonconforming development exists, the following standards shall apply:

- 1. Nonconforming development may be continued provided that it is not enlarged, intensified, increased or altered in any way which increases its nonconformity, except as follows:
 - a. Increases in structure footprint outside of the shoreline setback shall be allowed, even if all or a portion of the previously approved footprint is within the shoreline setback.
 - 1) Enlargement or expansion of a detached dwelling unit located partially or wholly within the shoreline setback by the addition of gross floor area that would increase the non-conformity and/or encroach farther into the shoreline setback where new structures or developments would not now be allowed may be approved if all of the following criteria are met:
 - a) Enlargement or expansion of a detached dwelling unit located partially or wholly within the shoreline setback by the addition of gross floor area that would increase the non-conformity and/or encroach farther into the shoreline setback may be approved if all of the following criteria are met:
 - i) The structure must be located landward of the ordinary high water mark.
 - ii) The enlargement or expansion in the shoreline setback shall not exceed 10 percent of the gross floor area of the existing dwelling unit prior to the expansion.
 - iii) The enlargement, expansion or addition shall not extend further waterward than the existing primary residential structure, not including appurtenances permitted under Section 83.180, such as bay windows or eaves. Encroachments that extend waterward of the existing residential foundation walls require a shoreline variance.
 - iv) The applicant must restore a portion of the shoreline setback area to offset the impact, such that the shoreline setback area will function at a 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 City's consulting biologist, who may approve, approve with conditions, or deny the request. The cost of producing and implementing the plan, as well as the review of the proposal by the City's consulting biologist, shall be borne by the applicant. Examples include, but are not limited to:
 - 1. Installation of additional native vegetation within the shoreline setback that would otherwise not be required under this Chapter. At minimum, the area of shoreline setback restoration and/or enhancement shall be equivalent to the area impacted by the improvement.
 - 2. 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 lake's OHWM and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or enhancement of nearshore shallow-water habitat.
 - 3. Setting back hard shoreline stabilization structures or portions of hard shoreline stabilization structures from the ordinary high water mark and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography and beach/substrate composition.

Existing Zoning Code Bulk and Dimensional Standards

Shoreline Environment	Zoning District	High Waterline Yard	Lot Coverage	Height	Minimum Lot Size
Urban Mixed	PR 3.6	Not applicable	70%	If adjoining a low density zone other than RSX, then 25' above average building elevation. Otherwise, 30' above average building elevation.	3,600 sq. ft./unit
	JBD 2	Not applicable	80%	26' to 39' if 30% view corridor provided	None
	JBD 3	Not applicable	80%	26' to 39' if 30% view corridor provided	3,600 sq. ft., with 2,400 sq. ft./unit
	JBD 4	?	80%	26' to 39' if 30% view corridor provided	3,600 sq. ft., with 1,800 sq. ft./unit
	JBD5	15' or 15% of average parcel depth, whichever is greater	80%	26'	3,600 sq. ft., with 1,800 sq. ft./unit
	CBD 1	Not applicable	100%	2-5 stories for Hotel/Motel, Stacked and Attached Dwelling Unit, and Assisted Living; otherwise 2-4 stories	None
	CBD 2	?	100%	2 stories ¹	None
	BN	Not applicable	80%	If adjoining a low density zone	None

¹ Along Lake Street South, north of Kirkland Avenue, buildings exceeding one story above Lake Street South shall demonstrate compliance with the Design Regulations of Chapter 92 KZC and all provisions of the Downtown Plan. Through Design Review (D.R.) the City shall find that any allowance for additional height is clearly outweighed by identified public benefits such as through-block public pedestrian access or through-block view corridors. In no case shall the height exceptions identified in KZC [50.62](#) and [115.60\(2\)\(d\)](#) result in a structure which exceeds 28 feet above the abutting right-of-way South of Second Avenue South, maximum height of structure is three stories above Lake Street South as measured at the midpoint of the frontage of the subject property on Lake Street South. Buildings exceeding two stories shall demonstrate compliance with the design regulations of Chapter [92](#) KZC and all provisions of the Downtown Plan

Shoreline Environment	Zoning District	High Waterline Yard	Lot Coverage	Height	Minimum Lot Size
				other than RSX, then 25' above average building elevation. Otherwise, 30' above average building elevation.	
	PLA 15A	15' or 15% of average parcel depth, whichever is greater	80%	30' for detached dwelling unit; 30-40' for office and attached or stacked dwelling units ² ; case-by-case for mixed use	5,000 for detached dwelling unit; 3,600 sq. ft./unit for attached and stacked du; Lot area/3,100 square feet for mixed use
	P	Case-by-Case			
Urban Residential	RM 1.8	15' or 15% of average parcel depth, whichever is greater	60 – 70% (depending on use)	If adjoining a low density zone other than RSX, then 25' above average building elevation. Otherwise, 30' above average building elevation.	3,600 sq. ft., with 1,800 sq. ft./unit
	RM 3.6	Not applicable	60 – 70%	If adjoining a low density zone	3,600 sq. ft./unit

² Structure height may be increased to 40 feet above average building elevation if:

- a. Obstruction of views from existing development lying east of Lake Washington Boulevard is minimized; and
 - b. Maximum lot coverage is 80 percent, but shall not include any structure allowed within the required front yard under the General Regulations in KZC 60.170; and
 - c. Maximum building coverage is 50 percent, but shall not include any structure allowed within the required front yard under the General Regulations in KZC 60.170 or any structure below finished grade; and
- A waterfront area developed and open for public use shall be provided with the location and design specifically approved by the City. Public amenities shall be provided, such as non-motorized watercraft access or a public pier. A public use easement document shall be provided to the City for the public use area, in a form acceptable to the City. The City shall require signs designating the public use area; and
- e. The required public pedestrian access trail from Lake Washington Boulevard to the shoreline shall have a trail width of at least six feet and shall have a grade separation from the access driveway; and
 - f. No roof top appurtenances, including elevator shafts, roof decks or plantings, with the exception of ground cover material on the roof not to exceed four inches in height, shall be on the roof of the building or within the required view corridors.

Shoreline Environment	Zoning District	High Waterline Yard	Lot Coverage	Height	Minimum Lot Size
			(depending on use)	other than RSX, then 25' above average building elevation. Otherwise, 30' above average building elevation.	
	WD I	15' or 15% of average parcel depth, whichever is greater	80%	30' for detached dwelling unit; otherwise 30-35' ³	3,600 sq. ft./unit
	WD III	15' or 15% of average parcel depth, whichever is greater	80%	30' for detached dwelling unit; otherwise 30-35' ⁴	3,600 sq. ft./unit
	PLA 6A	Not applicable	60 – 70% (depending on use)	If adjoining a low density zone other than RSX, then 25' above average building elevation. Otherwise, 30' above average building elevation.	3,600 sq. ft., with 1,800 sq. ft./unit
	PLA 6I	Not applicable	60 – 70% (depending on use)	30'	3,600 sq. ft., with 2,400 sq. ft./unit
	PLA 6H	Not applicable	60 – 70% (depending on use)	25'	5,000 square feet for detached dwelling unit;

³ Structure height may be increased to 35 feet above average building elevation if the increase does not impair views of the lake from properties east of Lake Washington Boulevard; and

- a. The increase is offset by a view corridor that is superior to that required by the General Regulations; or
- b. The increase is offset by maintaining comparable portions of the structure lower than 30 feet above average building elevation.

⁴ Structure height may be increased to 35 feet above average building elevation if the increase does not impair views of the lake from properties east of Lake Washington Boulevard; and

- a. The increase is offset by a view corridor that is superior to that required by the General Regulations; or
- b. The increase is offset by maintaining comparable portions of the structure lower than 30 feet above average building elevation.

Shoreline Environment	Zoning District	High Waterline Yard	Lot Coverage	Height	Minimum Lot Size
					2 acres with 3,600 sq. ft./unit
	PLA 3B	15' or 15% of average parcel depth, whichever is greater	80%	30' for detached dwelling unit; otherwise 30-35' ⁵	3,600 sq. ft./unit
Low Density Residential	WD II	15', 15% of average parcel depth, or average of adjoining lots, whichever is greater	50%	25'	12,500 sq. ft.
	RS 5.0	Not applicable	50%	25'	5,000 sq. ft.
	RS 12.5	Not applicable	50%	25'	12,500 sq. ft.
Urban Conservancy	P	Case-by-Case			
	RM 1.8	15' or 15% of average parcel depth, whichever is greater	60 – 70% (depending on use)	If adjoining a low density zone other than RSX, then 25' above average building elevation. Otherwise, 30' above average building elevation.	3,600 sq. ft., with 1,800 sq. ft./unit
Natural	P	Case-by-Case			
	PLA 3A				
	PLA 2				
	RS 12.5	Not applicable	50%	25'	12,500 sq. ft.

⁵ Structure height may be increased to 35 feet above average building elevation if the increase does not impair views of the lake from properties east of Lake Washington Boulevard; and

- a. The increase is offset by a view corridor that is superior to that required by the General Regulations; or
- b. The increase is offset by maintaining comparable portions of the structure lower than 30 feet above average building elevation.

Existing SMP Bulk and Dimensional Standards

Shoreline Environment	Existing SED	High Waterline Yard	Lot Coverage	Height	Minimum Lot Size
Urban Mixed	Urban Mixed 1	15' or 15% of average parcel depth, whichever is greater ⁶	N/A	35' above average grade level for detached dwelling unit; otherwise 41' above average grade level	3,600 sq. ft. for detached dwelling unit; 7,200 sq. ft., with 1,800 sq. ft./unit
	Urban Mixed 2	15' or 15% of average parcel depth, whichever is greater; or for mixed-use developments determined on a case-by-case basis based on the compatibility of the development with adjacent uses and the degree to which public access, use and	N/A	35' above average grade level for detached dwelling unit; 30-35' for attached/stacked dwelling units ⁷ ; or for mixed-use developments determined on a case-by-case basis based on the compatibility of the development with adjacent uses and the degree to which public access, use and views are provided.	3,600 sq. ft for detached dwelling unit; 7,200 sq. ft., with 3,600 sq. ft./unit

⁶ For attached or stacked dwelling units, balconies at least 15' above finished grade may extend up to 4' into the high waterline yard

⁷ Height may be increased from 30 to 35' if the increase does not impair the views of the lake from properties east of Lake St S or Lake Washington Blvd.

Shoreline Environment	Existing SED	High Waterline Yard	Lot Coverage	Height	Minimum Lot Size
		views are provided.			
Urban Residential	Urban Residential 1	15' or 15% of average parcel depth, whichever is greater	N/A	35' above average grade level for detached dwelling unit; otherwise 30-35' ⁸	3,600 sq. ft for detached dwelling unit; 3,600 sq. ft., with 3,600 sq. ft./unit
	Urban Residential 2	15' or 15% of average parcel depth, whichever is greater	N/A	35' above average grade level for detached dwelling unit; 30-35' for attached/stacked dwelling units ⁹	3,600 sq. ft for detached dwelling unit; 3,600 sq. ft., with 3,600 sq. ft./unit
Low Density Residential	Suburban Residential	15', 15% of average parcel depth, or average of adjoining lots, whichever is greater	N/A	25' above average grade level	12,500 sq. ft.
Urban Conservancy	Suburban Residential; Urban Residential 1 and Urban Mixed 1	Case-by-case	Case-by-case	Public parks in SR – structures may not exceed a height of 25' above average grade level Public parks in UM 1 – structures shall not exceed a height of 41' above average parcel grade level Otherwise, 35' above average parcel grade level	Case-by-case
Natural	Conservancy 1	15' or 15% of average parcel	N/A	25' above average grade level	35,000 sq. ft. per unit

⁸ Height may be increased from 30 to 35' if the increase does not impair the views of the lake from properties east of Lake St S or Lake Washington Blvd.

⁹ Height may be increased from 30 to 35' if the increase does not impair the views of the lake from properties east of Lake St S or Lake Washington Blvd.

Shoreline Environment	Existing SED	High Waterline Yard	Lot Coverage	Height	Minimum Lot Size
		depth, whichever is greater			
	Conservancy 2	100' and 50' from the canal	N/A	35' above average grade level for detached dwelling unit; 25' above average grade level for attached/stacked	35,000 sq. ft. per unit

*LCOG: L:\Small City Planning\kirkland\Regulations\Shoreline Uses\Development Standards\current zoning standards.doc
Last Saved: Monday, March 16, 2009*

24.05.140 General regulations—Land surface modification.

(a) General. The regulations of this section apply to proposed land surface modifications landward of the high waterline. See Sections [24.05.185](#) and [24.05.195](#) of this chapter for regulations that apply to land surface modification waterward of the high waterline (dredging and filling) and Section [24.05.180](#) of this chapter regarding land surface modification incidental to the construction of a bulkhead or other shoreline protective structures.

(b) Land Surface Modification Within the High Waterline Yard. Land surface and modifications within the high waterline yard may be permitted only if no unique or significant natural area of flora or fauna will be destroyed and only for the following purposes:

(1) The land surface modification is proposed by a public agency to improve public safety, recreation or access.

(2) The land surface modification is part of a development on the subject property and is to improve access to a pier, dock or beach.

(3) The land surface modification is necessary to provide public pedestrian access or a public use area.

(4) The land surface modification is necessary for the structural safety of a structure.

(5) There has been severe and unusual erosion within the one year immediately preceding the application and the land surface modification is to restore the shoreline to its configuration prior to this erosion.

(c) Land Surface Modification Landward of the High Waterline Yard. Land surface modification landward of the high waterline yard is only permitted if it is necessary for an approved development or use of the subject property or if it is incidental to landscaping for an existing use on the subject property.

(d) Additional Regulations. All land surface modifications landward of the high waterline must comply with the following requirements:

(1) The land surface modification must be the minimum necessary to accomplish the underlying reason for the land surface modification.

(2) Care must be taken to not create any direct or indirect adverse impacts on any adjoining property or Lake Washington.

(3) All surfaces exposed during land surface modification must be revegetated or otherwise covered as quickly as possible to minimize erosion.

(4) During land surface modification activities techniques should be employed to prevent erosion and runoff onto adjacent properties or into Lake Washington.

(5) Except as is necessary during construction, dirt, rocks and similar materials may not be stockpiled on the subject property. If stockpiling is necessary during construction, it must be located as far as possible from the lake and strictly contained to prevent erosion and runoff.

(6) Material that will be deposited on the subject property must be clean and not contain organic or inorganic substances that could pollute Lake Washington or otherwise be detrimental to water quality or aquatic or shoreline habitats.

(7) The city may require that land surface modifications be engineered and/or supervised by an engineer or similarly qualified professional.

(e) Land Surface Modifications in Conservancy Shoreline Environments. Notwithstanding any other provision of this section, land surface modification in Conservancy Shoreline Environments should not be allowed unless:

(1) It is necessary to rehabilitate a stream or otherwise improve or enhance the natural environment; or

(2) It is proposed by a public agency as part of development or use of the subject

property. (Ord. 3153 § 1 (part), 1989; Ord. 2938 § 1 (part), 1986)

(5) Shoreline vegetation conservation.

(a) **Applicability.** Vegetation conservation includes activities to protect and restore vegetation along or near marine and freshwater shorelines that contribute to the ecological functions of shoreline areas. Vegetation conservation provisions include the prevention of plant clearing and earth grading, vegetation restoration, and the control of invasive weeds and nonnative species.

Unless otherwise stated, vegetation conservation does not include those activities covered under the Washington State Forest Practice Act, except for conversion to other uses and those other forest practice activities over which local governments have authority. Master program provisions, vegetation conservation provisions apply even to those shoreline uses and developments that require a permit. Like other master program provisions, vegetation conservation standards do not apply to existing uses and structures, such as existing agricultural practices.

(b) **Principles.** The intent of vegetation conservation is to protect and restore the ecological functions and ecosystem-wide processes performed by vegetation along shorelines. Vegetation conservation should also be undertaken to protect human safety and increase the stability of river banks and coastal bluffs, to reduce the need for structural shoreline stabilization measures, to improve the visual and aesthetic qualities of the shoreline, to protect plant and animal species and their habitats, and to enhance shoreline

Master programs shall include: Planning provisions that address vegetation conservation and restoration, and regulatory provisions that address conservation of vegetation; as necessary to assure no net loss of shoreline ecological functions and ecosystem-wide processes; avoid adverse impacts to soil hydrology, and to reduce the hazard of slope failures or accelerated erosion.

Local governments should address ecological functions and ecosystem-wide processes provided by vegetation as described in [WAC 173-26-201 \(3\)\(d\)\(i\)](#).

Local governments may implement these objectives through a variety of measures, where consistent with Shoreline Management Act policy, including clearing and grading regulations, setback and buffer standards, critical area regulations, conditional use requirements for specific uses or areas, mitigation requirements, incentives and nonregulatory programs.

In establishing vegetation conservation regulations, local governments must use available scientific and technical information described in [WAC 173-26-201 \(2\)\(a\)](#). At a minimum, local governments should consult shoreline management assistance materials by the department and *Management Recommendations for Washington's Priority Habitats*, prepared by the Washington state Department of Fish and Wildlife where applicable.

Current scientific evidence indicates that the length, width, and species composition of a shoreline vegetation community are substantively related to the aquatic ecological functions. Likewise, the biota within the aquatic environment is essential to ecological functions of adjacent upland vegetation. The ability of vegetated areas to provide critical ecological functions diminishes as the length of a vegetated area along shorelines is reduced. When shoreline vegetation is removed, the narrower the area of remaining vegetation, the greater the risk that the functions will not be performed.

In the Pacific Northwest, aquatic environments, as well as their associated upland vegetation and wetlands, provide support for a myriad of fish and wildlife species. Healthy environments for aquatic species are inseparably linked with the ecological integrity of the surrounding terrestrial ecosystem. For example, a nearly continuous corridor of mature forest characterizes the natural riparian habitat in the Pacific Northwest. Riparian corridors along marine shorelines provide many of the same functions as their freshwater counterparts. The most commonly recognized functions of the shoreline vegetation include, but are not limited to:

- Providing shade necessary to maintain the cool temperatures required by salmonids, spawning forage fish, and other aquatic life.
- Providing organic inputs critical for aquatic life.
- Providing food in the form of various insects and other benthic macroinvertebrates.
- Stabilizing banks, minimizing erosion, and reducing the occurrence of landslides. The roots of trees and other riparian vegetation provide the bulk of this function.
- Reducing fine sediment input into the aquatic environment through storm water retention and vegetative filtering.
- Filtering and vegetative uptake of nutrients and pollutants from ground water and surface runoff.
- Providing a source of large woody debris into the aquatic system. Large woody debris is the primary structural element that provides hydraulic roughness to moderate flows. Large woody debris also serves a pool-forming function, providing critical rearing and refuge habitat. Abundant large woody debris increases aquatic diversity and stabilization.
- Regulation of microclimate in the stream-riparian and intertidal corridors.
- Providing critical wildlife habitat, including migration corridors and feeding, watering, rearing, and refugia areas.

Sustaining different individual functions requires different widths, compositions and densities of vegetation. The importance

different functions, in turn, varies with the type of shoreline setting. For example, in forested shoreline settings, periodic recruitment of trees, especially conifers, into the stream channel is an important attribute, critical to natural stream channel maintenance. The vegetated areas along streams which once supported or could in the future support mature trees should be wide enough to support the periodic recruitment process.

Woody vegetation normally classed as trees may not be a natural component of plant communities in some environments, especially in coastal climates and on coastal dunes. In these instances, the width of a vegetated area necessary to achieve the full suite of vegetated shoreline functions may not be related to vegetation height.

Local governments should identify which ecological processes and functions are important to the local aquatic and terrestrial environments and conserve sufficient vegetation to maintain them. Such vegetation conservation areas are not necessarily intended to be closed to development but should provide for management of vegetation in a manner adequate to assure no net loss of shoreline ecological functions.

(c) **Standards.** Master programs shall implement the following requirements in shoreline jurisdiction.

Establish vegetation conservation standards that implement the principles in WAC [173-26-221](#) (5)(b). Methods to do this include setback or buffer requirements, clearing and grading standards, regulatory incentives, environment designation standards, and other program provisions. Selective pruning of trees for safety and view protection may be allowed and the removal of noxious weeds may be authorized.

Teresa Swan

From: RLSTYLE [rlstyle@aol.com]
Sent: Wednesday, January 21, 2009 3:42 PM
To: Teresa Swan
Subject: Shoreline 1-22-09 citizen update

Shoreline update (1-21-09)

Ref: 83.300 2a: The 10-foot waver for geotech reports pertains to so few existing properties; it doesn't achieve the goal protecting existing property rights. You've whitewashed the staff report and have ignored the request from shore owners. The shoreline setback has been 15 feet for more than 20 years and affects many homeowners. The waver for geotech reports should be 15 feet.

It's important to acknowledge existing conditions. To impose additional onus on the property owners who live on the shoreline who have developed according to existing rules and regulations should not be punished for obeying the law. I have not seen any justification for reducing the 15-foot setback to 10 feet making the 10-foot rule arbitrary and capricious since there has not been a public hearing on shoreline setbacks. During that hearing, the commission should recommend and honor the existing 15-foot setback of those who live on the shoreline in Kirkland. Do not turn your backs on them especially when there is no reason to change, perceived or otherwise. The difference of 5 feet will have little of no adverse environmental impacts.

There are many references to the 10-foot rule throughout the staff report. Change all the references to 15 feet if you care about Kirkland. There will not be any additional net loss from what there is now.

Almost all of Kirkland needs protection from wave action. For additional "demonstrated need" reports to show how erosion over 3 years will negatively impact properties and therefore is necessary to protect single-family homes is ridiculous. We already know what happens if bulkheads are not allowed. It's time you acknowledged what we already know when wave heights exceed above 2 feet and/or the wind exceeds 25 MPH from the SW or NW.

2b: Repairs of bulkheads should allow 100% of bulkheads to be repaired without being categorized as a "major" modification. All the property needs protection, not just 75%, and since they are repairs, they should be exempted from additional geotech requirements regardless of how far the home is from the shoreline.

Ref: 5d General Design Standards: Patios not higher than 4 inches are allowed and should be allowed to within 5 feet from the water. They should not be prohibited. Just how much benefit shoreline vegetation provides is questionable if the vegetation will shade areas that the city and DOE have acknowledged that need sunlight. The sunlight requirements are incorporated in the proposed dock regulations. The width of native riparian vegetation should be 5 feet, not an average of 10 feet and far less than 75 percent in length. I don't know why you chose the depth and width criteria. I think it was arbitrary and capricious and certainly should not be adopted unless there is a public hearing.

Para 5f is extremely vague. Just what is meant when shoreline stabilization **substantially interferes with visual access to the water?** What is meant by "substantially?" What is meant by visual access? It would be nice if you used language that is more precise. Any vegetation should not be higher than 3 feet as to not block views. If the height exceeds 3 feet, vegetation will only be placed in the side yard setbacks. Existing vegetation should be preserved when possible.

Before preceding any further with what you think will be acceptable to DOE, please define no net loss. Fingerlings swim the shores of Lake Washington, and many other locations, eagles still fly, and species such as muskrats, beavers, nutria, and milfoil, lily pads are being reduced and relocated because they are incompatible with development. Much has already been lost so what more is needed. As long as what we adopt doesn't result in a net loss on top of what has already occurred, we are in compliance with DOE. If we are not, let them prove it.

It's hard for me to see just how you are working for the City of Kirkland. The DOE and the environment may be a higher calling over local regulations but only if what they require complies with the best management practices, the best available science, and include the laws of physics. And, if mandated by them, let them fund all the improvements they think are necessary.

Sincerely,

Robert L. Style
6735 Lake Washington Blvd, NE
Kirkland, WA 98033
425-827-0216

Teresa Swan

From: Daved [Daved@waterfrontconstruction.com]
Sent: Thursday, January 22, 2009 12:35 PM
To: Cathy Beam; MPaine@bellevuewa.gov; Stacy Clauson; peterr@ci.issaquah.wa.us; jding@ci.kenmore.wa.us; rgrumbach@ci.medina.wa.us; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; Michelle Whitfield; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; White, Jean; george.steirer@mercergov.org; Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan
Cc: eride@msn.com; donovan@donovantracy.com; raa@vnf.com; Dennis Reynolds; Ken Sethney
Subject: PUGET SOUND PARTNERSHIP PLANS FOR POSSIBLE OVERTAKE OF LOCAL GOVERNMENT SHORELINES AND AUTHORITY
Attachments: PSP Response.doc; Coalition Power Point--Oct 2008.pdf

Dear Local SMP Contacts and Interested Parties,

Hope everyone is having a great week.

You may already know about the Puget Sound Partnership but if you haven't reviewed the Draft 2020 Action Agenda for Puget Sound they are going to be requesting billions of taxpayer dollars to implement an aggressive agenda then you may find it some interesting reading. Public comment was given and no acknowledgment or replies were received and they approved the draft and forwarded it to the legislature on December 1, 2008 for review and adoption.

It appears to be another example of targeting private property owners and failing to address the primary causes of water quality degradation and impacts to fish and habitat. They seem to be directing most of their efforts at residential bulkheads and piers similar to what DOE is doing with the SMP Updates. If you haven't read the original 95 page agenda that is now 207 pages sent to the legislature you might find it interesting. It does very little to address impacts from aquaculture and businesses that contribute significantly to the region's economic base and point sources of pollution. The document also uses the "no net loss" term being used for the SMP Updates.

Although it is named the "Puget Sound" Partnership it also pulls in the watersheds and Lake Washington and Sammamish are included in the South Central Puget Sound Area. This means the state could take regulatory control of your shorelines and your citizens. Of course it doesn't come right out and say that but none of us were born yesterday. You owe it to your citizens to do some research and discuss this with your local leaders and decide where you will stand on the issue. It will probably be more controversial than the SMP Updates (which by the way are listed in the agenda matrix as one of their targets so the updates are just a routine requirement

The Puget Sound Partnership is including everyone except the shoreline property owners who will be most impacted. They hope to either restrict or eliminate residential piers and bulkheads or require them to go through the Conditional Use Process where the state will approve or deny them.

The link to the agenda is: http://www.psp.wa.gov/downloads/ACTION_AGENDA_2008/Action_Agenda.pdf

I have attached my comments to the PSP and as stated did not receive acknowledgment or a response (no surprise there). I also included an interesting slide show from the Coalition to Protect Puget Sound Habitat showing the damage from aquaculture that is far more impacting than any amount of piers and bulkheads.

If you aren't interested please delete this correspondence.

Thanks and have a great day.

Sincerely,
Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.

Teresa Swan

From: RLSTYLE [rlstyle@aol.com]
Sent: Tuesday, January 27, 2009 11:21 AM
To: KirklandCouncil
Cc: Teresa Swan; Eric Shields
Subject: Fwd: Shoreline Master Plan updates
Attachments: RE: Shoreline Master Plan updates

Honorable Councilmembers:

I sent Rep. Eddy and other state reps this message about the Shoreline Master Plan. Ignoring all the personal differences, the first line of her response is what is important. It says **she does not disagree that the state should help fund the SMA process.** For her not to see the connection between the state's requirement and the city update contradicts her first sentence and is ludicrous. Also, I'm not complaining about having to pay for my mitigation's; just what I had to pay for the benefit of others like Rep. Eddy who don't pay.

I would hope that staff, the Planning Commission, and ultimately you pursue substantial funding from the state for the improvements you adopt. If not, then the improvements that benefit all those who use the lake should be adopted on the condition that the state provide the funds. Otherwise, no.

Sincerely,

Robert L. Style
6735 Lake Washington Blvd, NE
Kirkland, WA 98033
425-827-0216

Teresa Swan

From: Daved [Daved@waterfrontconstruction.com]
Sent: Wednesday, January 28, 2009 2:49 PM
To: Daved; Cathy Beam; MPaine@bellevuewa.gov; Stacy Clauson; peterr@ci.issaquah.wa.us; jding@ci.kenmore.wa.us; EConkling@ci.renton.wa.us; mvannostrand@ci.sammamish.wa.us; Margaret.glowacki@seattle.gov; mhgreen@comcast.net; Harry.reinert@kingcounty.gov; Michelle Whitfield; SBennett@ci.lake-forest-park.wa.us; Paul Stewart; travis.saunders@mercergov.org; White, Jean; george.steierer@mercergov.org; Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan; Robert Grumbach; DBent@ci.kenmore.wa.us
Cc: eride@msn.com; donovan@donovantracy.com; raa@vnf.com; Dennis Reynolds; Ken Sethney; Gregory W. Ashley
Subject: SLIDE PRESENTATION ON THE "SHORELINE PERMITTING PROCESS"

Dear SMP Points of Contact and Interested Parties,

If you are interested, I have created a thorough and informative slide presentation entitled, **The Shoreline Permitting Process; A System of Checks and Balances; "An Applicant's Perspective"**. I am available to present any of the 3 presentations (Standard, Condensed and Further Condensed) for your audience. It can be presented as a part of a study session prior to your council or commission meetings or during the regular meeting time.

I am offering this because after attending dozens of SMP Update meetings along with a company meeting with DOE staff and speaking with multiple planners and property owners I have discovered most people are unfamiliar with the local, state and federal regulatory permitting process or have not taken the time or invested the effort to evaluate the vast improvements made over the last 5 to 10 years along the shorelines of Lake Washington and Lake Sammamish. This and the use of "best available science", from white papers which when read are inconclusive at best, has resulted in bulkheads and piers on private property being targeted for sweeping changes that will impact every local government and its citizens. People are only told the bad and improvements are never recognized or rewarded in this type of business or for this group of private property owners. Reference photos are usually those of older and large piers built many years ago to paint the worst picture in people's minds.

Following meetings in Seattle and Kirkland over a year ago I realized there was a lot of imbalance and misinformation being distributed to local governments and SMP decisions are being made by a small number of well-meaning but uninformed or misdirected parties who may be unfamiliar with the process. Attendance by waterfront property owners and the general public was sparse (and still is) and most people in this group did not understand how the future use and value of their properties would be impacted. SMP Updates could very well have been discussed and approved in a "smoke filled room at midnight" to coin an appropriate phrase. All of this would be done at the expense of an unsuspecting and trusting public.

It is important for local government leaders and staff to understand that the responsibility of protecting natural resources is not resting solely on their shoulders and to adopt an overly restrictive SMP will turn control of their shorelines over to the state because most existing structures will become legally nonconforming and many new and replacement structures, even if they are an improvement over existing conditions, will require a variance. The term "no net loss" was being used without clarity and there was no discussion supporting the fact that replacement structures, both piers and bulkheads, could meet this DOE requirement.

The presentation was done for the Kirkland Planning Commission on January 22, 2009 and it seemed to go very well. It resulted in excellent discussion, a lot of good questions and the Commissioners expressed appreciation. It was scheduled for 15-20 minutes but with discussion lasted nearly 1 hour and 15 minutes. It was a very cordial atmosphere and Joe Burcar from DOE and Tom Sibley from NMFS were also in attendance. The City of Kirkland is doing an excellent job in addressing their property owner concerns and gathering all available information and listening to all sides. They are trying to fully understand the impacts of their decisions and protecting the community and I believe the presentation assists to that end.

Please note that it is a very honest and transparent presentation from the applicant's perspective based on my 6+ years of representing waterfront property owners in working for Waterfront Construction on over 300 projects. It also includes photos of some recent pier, bulkhead and shoreline renovation projects completed since the establishment and review of projects under the Endangered Species Act, the 2003 SMA Guidance from DOE, and the Corps Regional General

Permits for Residential Piers and Watercraft Lifts. It includes the positive and negative aspects of the current permitting process.

At this time it looks as though I may be doing the presentation for Bainbridge Shoreline Homeowners, Renton, Issaquah and Kenmore. I wish I could have offered the presentation before Redmond and Lake Forest Park got so far along in their update process because it may have impacted some of their decisions. Depending on where they are in the process with DOE there may still be time.

This offer of single or multiple presentations is being made to Councils, Commission, General Public, Homeowners Associations or interested parties in the following areas: Bellevue, Hunts Point, Issaquah, Kenmore, Kirkland (Houghton), Lake Forest Park, Medina, Mercer Island, Redmond, Renton, Sammamish, Seattle, Yarrow Point, King County, Pierce County, Kitsap County, and Bainbridge Island.

Every Planning Commissioner, City/County Council Member and citizen should have an understanding of the shoreline permitting process from the ground level and this offers them the opportunity. I look forward to hearing from you. I am available most evenings with limited Wednesdays. I am unavailable from Feb 26 through March 7 and July 17 through July 27. The owner of Waterfront Construction is covering my time and expenses so there is no cost for the presentation. Please let me know as soon as possible. I look forward to hearing from you.

Working with you to ensure SMP Updates are accomplished with the integrity, honesty and balance your citizens deserve.

Sincerely,
Dave Douglas
Permit Coordinator
Waterfront Construction, Inc.

Richard K. Sandaas
12453 Holmes Point Drive
Kirkland, WA 98034
425.823 2145
eride@msn.com

February 7, 2009

Kirkland Planning Commission
Paul Stewart, Deputy Director of Planning
Teresa Swan, Senior Planner
Stacy Clauson, Contract Planner
City of Kirkland
123 Fifth Avenue
Kirkland, WA 98033

Reference: Kirkland's Shoreline Master Program Update

Dear Planning Commission members and staff:

I first commented on Kirkland's SMP update process in a letter sent on October 3, 2006. I raised concerns about the scientific basis being used and stated:

*"Conclusions must be supported by sound science.
The draft Inventory contains a number of suppositions,
inferences, and hypotheses".*

Over the nearly two and a half years since, I have continually raised this issue, most recently in my letter of January 8, 2009. The packet prepared for the Planning Commission Study Session on January 22, 2009 contained a response to this most recent letter where I again questioned the scientific basis supporting the SMP updates.

I have reviewed the materials cited in the Study Session packet and do not find any scientific study that is specific to salmon migration or presence along Kirkland's shoreline. Here is my analysis of these citations which began on page 27 of the packet:

Shoreline Analysis Report (Inventory)

This report, in Section 5.2.1, describes the travel of Chinook fry. It says they

“...congregate near the mouths of tributary streams and prefer low gradient, shallow-water habitats with small substrates.”

It goes on to state:

“...they do not disperse far from the mouth of their natal stream...”

Then,

“As the juvenile Chinook salmon mature to fingerlings and move offshore, their distribution extends throughout Lake Washington. Although early emigrating Chinook fry from the Cedar River and North Lake Washington tributaries (primary production areas) initially do not disperse to shoreline areas in Kirkland, any salmon fry from smaller tributaries such as Juanita, Forbes, or Yarrow Creeks would depend on nearshore habitats of the Kirkland waterfront.”

Most of the Chinook salmon that migrate through Lake Washington travel to and from the Cedar River. Much small numbers have Bear Creek, the Sammamish River, and Lake Sammamish as their origin and destination. And as the citation in the *Inventory* states, these fish do not disperse to the Kirkland shoreline. As for Chinook fry from Juanita, Forbes, or Yarrow Creeks, neither their numbers or their travel patterns have been studied or documented.

Links to Available Maps

The first three links are to maps which are intended to show distribution of Chinook, Sockeye, and Coho salmon in Lake Sammamish, Lake Washington, and mid-Puget Sound. This distribution is indicated by a scattering of dots throughout these water bodies. I challenge the use of these maps to draw any scientific conclusions about migratory patterns of salmon along Kirkland's shoreline because of their high level array with lack of any detail on a specific area. Furthermore, this disclaimer appears on each map:

“This map is not warranted as fit for a particular purpose.”

Page 3

I was unable to access the fourth link as depicted. I did locate a document, *Lake Washington and Ship Canal Acoustic Tracking*, December 2008, which studied Chinook salmon migration from the Cedar River, through Lake Washington, and into the Ship Canal. This report makes it clear that none of the Chinook from the south end of the lake travel anywhere near the Kirkland shoreline. Regarding Chinook from other tributaries, the report states:

“In addition, small numbers of Chinook salmon spawn in several tributaries to Lake Washington and Lake Sammamish, but juvenile production from these streams is unknown.”

It goes on to state on page 3:

“However, little research has been conducted to understand habitat use or finer-scale movement patterns of juvenile Chinook salmon during their migratory phases in late-May, June and July. Various methods such as snorkeling and hydro acoustic surveys have been tried to study the habitat use patterns of juvenile Chinook salmon after mid-May but these efforts were met with limited success.”

I was also unable to access the fifth link, the WDFW SalmonScape map. This was said to document fish use of Kirkland streams. It does not mention fish travel along the shoreline.

Roger Tabor comments

Mr. Tabor is with the U.S. Fish and Wildlife Service and is one of the parties who prepared the *Lack Washington and Ship Canal Acoustic Tracking* report mentioned above (which finds little research done on Chinook salmon movement). He also is a contributor to the *Synthesis of Salmon Research and Monitoring* report, which finds that little is known about outmigration of Coho, sockeye, and steelhead. A review of this report follows.

In views of his involvement in these studies, I find his shown comment on page 29 of the January 22, 2009 packet to be curious:

“It seems logical that Chinook are all over the lake. The only way Chinook could entirely miss Kirkland is that if all the hatchery and naturally-produced fish from the eastside decided to only use the west shoreline of Lake Washington, which is highly unlikely”.

Page 4

Here is my counter-supposition to his:

It seems logical that after remaining at the mouth of the Sammamish Slough for a period of time, the emigrating eastside fry would begin their travel to the Ship Canal by traveling along the shoreline of St Edwards Park and then move through deeper water towards Magnuson Park and then south along the western shoreline to Webster Point to begin their journey to the Locks. While some may stray elsewhere in the lake for a brief period,, this path would seem to be the most likely way for their journey to the Ship Canal and Locks.

My supposition is supported by several studies that I reviewed. The point here is that until a conclusive study of the so-called eastside Chinook is performed, with the same scope and effort of the December, 2008 study for the Cedar River Chinook, there is no sound science documenting “eastside” Chinook behavior along Kirkland’s shoreline or the rest of Lake Washington. This also applies to Coho, steelhead, and sockeye as noted below.

Scientific Studies, page 29

A point is highlighted in the packet that “scientific information continues to be developed.” It was pointed out that since the year 2000 other studies have been conducted. This is in reference to a literature search that had been cited by a letter from Futurewise (to which I responded) that was conducted in 2000.

To that point I have located a very recent study titled *Synthesis of Salmon Research and Monitoring. Investigations Conducted in the Western Lake Washington Basin. December 31, 2008*. Here are several important findings:

Page 4. Table showing Major Research Findings.

Under the heading Lake Washington Outmigration, it states:

“Little is known about the outmigration of Coho, sockeye, or steelhead.”

Page 5

Page 41. Coho Salmon and Steelhead.

“Not much information is known about the habitat use of Coho salmon and steelhead in Lake Washington.”

Page 44. Habitat Use and Behavior.

“Observations of migrating Chinook indicate that these fish aggregate and move along the shoreline during the day, generally in water depths of 6.8 feet to 14.8 feet”

Page 45. Habitat Use and Behavior.

“Outmigration behaviors of sockeye, Coho, and steelhead have not been studied in Lake Washington.”

This analysis of the January 22, 2008 packet show that many unanswered questions remain about salmon migration in Lake Washington along the Kirkland shoreline, and that there is a lack of sound science that is fully vetted to support and justify the remediation and restoration approaches that are being developed in the SMP update process.

Both the Department of Ecology and WRIA8 have put the jurisdictions on Lake Washington in a difficult position by “playing the salmon card”. DOE has imposed the precautionary principle that is most unreasonable and unrealistic. It is a “press on regardless” line of thinking. And WRIA8 has designated Kirkland’s shoreline as a Tier 1 migratory corridor, absent studies to support that. As it now stands, decisions on the SMP updates are being based on policy, not science.

It is important for the Kirkland Planning Commission members and the City Council to be fully aware of the scientific basis that is being used to support the SMP goals, policies, and resulting regulations. All members should review the studies that are cited, understand what is known and what is not known. Then, if it is the decision to move forward with regulations that drive towards “green shorelines” so be it. At least it will be a fully informed decision, but one that will drive the expenditure of millions of dollars by Kirkland shoreline property owners and all the other Kirkland taxpayers for “shoreline enhancements” with questionable salmon based environmental and ecological benefits.

Page 6

Lake Washington must be protected and enhanced. In the past, millions of dollars were spent to restore its health through the Metro clean up program. The threats were known and the solutions were crafted to deal with them. Today, limited public and private dollars must be spent wisely, targeted at real threats so that successful outcomes are assured.

And the real threats of stormwater runoff, non-point pollution, and invasive weeds remain.

In providing these comments I once again want to make it clear that, as a shoreline property owner, no one has a greater interest in the protection and enhancement of our shoreline and the ecology of Lake Washington. Along with other SPOCA members, we want to continue to work with you to achieve feasible, effective, and beneficial goals and policies resulting from the SMP process.

Very truly yours,

Richard K. Sandaas
Chair, SPOCA
Shoreline property owner

Teresa Swan

From: Melanie Gelow [mlgelow@verizon.net]
Sent: Thursday, February 26, 2009 9:09 AM
To: Teresa Swan
Subject: Bulkhead replacement and repair

Teresa,

A number of us who live on the lake are "old-timers". We are not members of the newly rich and as such would find it a financial hardship to have to rebuild a perfectly good bulkhead should we decided to tear down and rebuild our homes. With real estate taxes already approaching 20 grand a year we are finding it hard to just stay in our houses as it is, particularly for retirees. Some are just a "disaster" away from being to foreced to sell our homes (such as an expensive bulkhead repair).

Please don't force us to have to rebuild our bulkheads.

Gary Gelow

Teresa Swan

From: Richard Sandaas [eride@msn.com]
Sent: Friday, February 27, 2009 3:27 PM
To: Paul Stewart; Teresa Swan; Stacy Clauson
Subject: Science and the SMP Updates
Attachments: SHORELINE MASTER PROGRAM UPDATES Science Green Shorelines.doc

Dear Paul, Teresa, and Stacy:

As you know, for some time I have been concerned about the scientific basis being used to support the SMP Update processes.

In my recent correspondence I outlined several points and following that I decided to do further review of a number of studies, including the two most recent ones released this past December. This confirmed that there are indeed issues, more than I expected.

Attached is a paper that I have authored regarding the science being used to support the SMP process along with some discussion about the Green Shorelines movement. You will see that I have specific citations from a number of studies which substantiate my concerns.

The Planning Commission members and the City Council should take the time to review these studies so that they understand their applicability and relevance to the specific characteristics of Kirkland's shoreline.

Let me know if you'd like to discuss this. I'd be happy to do so.

Regards,
Dick Sandaas

SHORELINE MASTER PROGRAM UPDATES

SCIENCE AND GREEN SHORELINES

The SMP update processes being conducted by the local governments on Lake Washington are leading to policies and regulations calling for removal of hardened shorelines and replacement with beaches; shoreline landscaping intended to provide shade, while at the same time requiring modification of piers to reduce shading; the reduction of piers, both in size and number; and placement of woody debris along the shoreline. The result will be the expenditure of millions of dollars by shoreline property owners and taxpayers. It also results in loss of usable shoreline and uplands by both private property owners as well as park users.

The drivers behind this are guidance and directives from the Department of Ecology and WRIA 8 taken from research and studies with the focus on salmon habitat. Even though DOE is requiring local governments to use “all available technical and scientific information” and to “solicit additional information through the public participation process”, the body of science and research is not complete, contains suppositions and hypotheses, is sometimes contradictory, and cannot be applied broadly to all shoreline locations on Lake Washington. WRIA 8 has identified the Kirkland shoreline as a Tier 1 Migratory Corridor, but have studies been conducted to support that?

SCIENCE AND ITS DEFICIENCIES

VETTING OF SCIENCE

A number of researchers have been studying Lake Washington for many years. Their studies have found their way into a body of knowledge that is widely used, yet a vetting process for these studies and research is yet to be reported. If these studies are to be the basis for actions that will cost millions of dollars, it is reasonable to expect that a vetting process be conducted. An example is the vetting of science developed for the Columbia River. Here the Northwest Power Planning Council has implemented an Independent Science Review Board to review all studies that are being utilized. With so much at stake a similar process should be invoked for the Lake Washington studies.

AREA SPECIFIC STUDIES – WHERE DO THE FISH TRAVEL?

The DOE Guidance Fall 2008 cites one study which “focuses on the affects of shoreline alterations to salmon migration” implying its applicability to all parts of Lake Washington and Lake Sammamish.¹ Yet this study was conducted for Cedar River Chinook salmon at the south end of Lake Washington. A close reading of the study and its conclusions shows considerable unanswered questions.

There are several other studies which are also specific to the Chinook at the south end of Lake Washington and one documents their migration along the western shore of Lake Washington past Seward Park to the Ship Canal.^{2 3} These localized studies are being used in SMP update processes as a basis for actions elsewhere on the lake, far away from the migratory route that these Chinook utilize, and these fish are the majority of Chinook found in Lake Washington.

As to where fish travel in other parts of Lake Washington, here are excerpts from other studies:

The distribution of juvenile Coho salmon in Lakes Washington and Sammamish **is poorly understood.**⁴

“...small numbers of Chinook salmon spawn in several tributaries to Lake Washington and Lake Sammamish but juvenile production from these streams **is unknown.**”⁵

“**However little research has been conducted** to understand habitat use or finer-scale movement patterns of juvenile Chinook salmon during their migratory phase in late-May, June, and July.”⁶

Not much information is known about the habitat use of Coho salmon and steelhead in Lake Washington.⁷

Outmigration behaviors of sockeye, Coho, and steelhead **have not been studied** in Lake Washington.⁸

Juvenile Chinook in the North Lake Washington population are less shoreline-oriented than juveniles from the Cedar River. **More information is needed** about the trajectories of NLW juvenile Chinook in Lake Washington, particularly when they move offshore.⁹

EFFECTS OF PIERS AND BULKHEADS ON SALMON

Study Excerpts:

No studies were located that specifically investigated the effects of piers and armored shorelines on the migration of juvenile Chinook and Coho salmon along lakeshores.¹⁰

The question remains whether juvenile salmonids in lakes migrate under, or otherwise utilize, piers, or if they avoid them and/ or traverse their perimeter.¹¹

Behavior at each structure appears to depend on a variety of factors...although these are based primarily on **anecdotal observation.** (example of non-scientific hypotheses)¹²

Additionally, juvenile Chinook salmon may be attracted to boat ramps due to the docks in between the boat ramps **which may provide some overhead cover.**¹³

The substrate and slope are similar along this shoreline and it is unclear why Chinook salmon prefer the north part over the south part. One possibility is that the north sites are close to a **pier which may provide overhead cover** if needed.¹⁴

The result is that **resource managers are challenged** to recommend and implement Chinook salmon conservation strategies in Lake Washington with few references to unaltered lacustrine habitats, and an **incomplete understanding** of how alterations to the Lake Washington ecosystem affect juvenile Chinook salmon.¹⁵

Shoreline processes of Lake Washington have been changed by the regulated maximum one foot rise and fall of the lake. (Regulated at the Locks) Therefore **the removal of bank hardening structures may not be sufficient to create sandy beaches...**¹⁶

Studies of the relationship between shoreline armoring and predation on juvenile Chinook or Coho salmon in Lake Washington and Lake Sammamish **were not found.**¹⁷

While no direct links were identified between predation and bulkheads, an intuitive connection exists. (This is an example of subjective or hypothetical conclusions found throughout many of the studies)¹⁸

SHORELINE VEGETATION, WOODY DEBRIS, AND BEACHES

Study Excerpts:

Very few fish are found with cobble and larger substrates.¹⁹ (This is significant because in many shoreline areas containing bulkheads, the replacement beaches would have to consist of cobbles and larger materials because sand will wash away in the first storm. Extensive beach restoration which must protect property from erosion would require cobble and larger granular material.)

The pattern of woody debris use is **somewhat unclear.**²⁰

Overall results indicated that there was **no difference** in the abundance of Chinook salmon between shoreline sections with small woody debris and sections without woody debris.²¹

WATER QUALITY

None of the studies listed report on water quality, yet this is fundamental to the health of all aquatic life. The WRIA 8 document develops a hierarchy for tributary streams and lists Juanita Creek (doesn't mention Forbes Creek) as a Tier 3 subarea. The actions for this category are enhancing water quality and hydrologic integrity.²² Thus for Kirkland, it would seem that the focus should be on storm water runoff and non-point pollution for tributary areas.

UNANSWERED QUESTIONS

The excerpts shown above confirm the issues facing the science underlying the SMP update processes. In addition, there are other questions raised by these studies. A comprehensive list is found in the literature search conducted by The Watershed Company for the city of Bellevue (Reference 4). Page 49 of this report contains 13 unanswered questions which should be reviewed by all local government policy makers. And, to further the body of science, they should be answered.

GREEN SHORELINES

There is another driver and that is a movement that has a push-pull relationship with the SMP update processes. It is called Green Shorelines. Other terms associated with this are salmon friendly, ecologically friendly, soft engineering, soft shorelines, alternative shoreline design, and living shorelines. It is a broad concept, applied to the entire shoreline of Lake Washington in a "one size fits all" way. As yet, it doesn't recognize the physical differences along the lake shoreline, exposure to storm driven waves and boat wakes, fish migratory patterns, extent of existing or potential fish habitat, or other unique characteristics.

Green Shorelines presumes that the restoration envisioned will achieve the goal of improved habitat and support salmon recovery. It also presumes that current scientific studies are sufficient to support and justify the goals for alternatives to shoreline hardening and justify the millions of dollars of expenditures to achieve them.

There is also an aesthetic component, typified by a number of comments lamenting the urbanization of Lake Washington beginning with the construction of the Ship Canal and the Locks and the lowering of the lake and the developments along the shoreline over the years.

A publication titled "Green Shorelines; Bulkhead alternatives for a healthier Lake Washington" has been prepared by the City of Seattle. It cites habitat restoration as a prime objective and provides resource information for bulkhead replacement.

Nowhere in all of this is any recognition of the DOE Guideline that it is not the intent of the SMP update process to restore the shoreline to predevelopment conditions.

SHORELINE PROPERTY OWNERS' PERSPECTIVES

There is no group more interested and concerned about the health and ecology of Lake Washington than shoreline property owners. Furthermore there is no group that has more site specific knowledge about the lakeshore and the waters surrounding it than these property owners. For these reasons the criteria that support future actions must be well founded and credible.

Owners will support credible programs with these criteria:

- Attain measurable environmental benefits
- Feasible and practical
- Cost effective
- Fair and equitable
- Not impose hardships
- Not impose risks to property or homes
- Avoid unintended consequences
- Based on sound science that is reviewed and vetted

There is a widespread belief among shoreline property owners that the credibility of the SMP update processes and the Green Shoreline movement is hampered by the lack of several of these criteria, a most significant being vetted science.

HOW TO RESPOND TO THESE DEFICIENCIES AND QUESTIONS?

Policy makers must consider the scientific basis for driving the SMP policies and resulting regulations and determine if it is sufficient or not. The DOE Guidance states:

Ultimately, local government elected officials must consider all of the information put before them, including opposing views and opinions, judge their credibility and decide what standards best achieve SMP guidelines requirements, **given local circumstances**.

If it is determined that the science is not adequate or applicable as a basis for a local government's SMP update process, several options are available.

The first is to join with the other local governments on Lake Washington to put in place a vetting process for the science that is being used to support the SMP update processes. This effort should be led by the Department of Ecology and coordinated with the other regulatory agencies so that the end result is endorsed by all.

Second, further studies should be conducted to answer the questions still remaining, the most significant ones being those contained in the Literature Search mentioned above. The vetting process would likely raise additional questions and concerns.

Third, studies should be conducted that are site specific to a local government's shoreline so that actions can be implemented that will insure real environmental benefit. A key issue is where do salmon migrate, to

what extent to they utilize a local government's shoreline? It is not enough to say, 'It seems Chinook are all over the lake'.²³ One example of a site specific study is the Movement and Habitat Use study that was conducted for Chinook coming from the Cedar River to the Ship Canal (Reference 5). This study follows the rationale of the site specific requirement being imposed on private shoreline property owners who must provide an engineering report to justify the retention of bulkheads to protect their property.

The fourth option is to waive the scientific deficiencies and base the SMP updates on policies and regulations which would be focused mostly on esthetics and a hopeful outcome for habit improvement.

In any event, now is the time for policy makers to fully understand the extent and applicability of the body of scientific knowledge that exists and make a determination as to which pathway forward to follow.

In the meantime, the real and serious issues of stormwater runoff and non-point pollution, true threats to fish habitat, continue.

Prepared by Richard Sandaas
Shoreline Property Owner
February 27, 2009

¹ R. A. Tabor and R. M Piaskowski, 2002. Nearshore Habitat Use by Juvenile Chinook Salmon to Lentic Systems of the Lake Washington Basin. Annual Report, 2001. U.S. Fish and Wildlife Service, Lacey, WA.

² R. A. Tabor, J. A. Schuerer, H. A. Gearn, and E. P. Bixler. 2004. Nearshore Habitat Use by Juvenile Chinook Salmon to Lentic systems of the Lake Washington Basin. Annual Report, 2002. U.S. Fish and Wildlife Service, Lacey WA.

³ Multiple Contributors. 2008. Synthesis of Salmon Research and Monitoring. Seattle Public Utilities, U.S. Army Corps of Engineers

⁴ T. Kahler, M. Grassley, and David Beauchamp, 2000. A Summary of the Effects of Bulkheads, Piers, and Other Artificial Structures and Shorezone Development on ESA-listed Salmoids in Lakes. City of Bellevue. Page 9

⁵ Mark T. Celedonia, R. A. Tabor, S. Sanders, D. W. Lantz, and I. Grettenberger, 2008. Movement and Habitat Use of Chinook Salmon Smolts and Two Predatory Fishes in Lake Washington and the Lake Washington ship Canal. U. S. Fish and Wildlife Service, Lacey, WA. Page 1

⁶ Ibid, Page 3

⁷ Multiple Contributors, Synthesis, Page 41

⁸ Ibid, Page 45

⁹ Chapter 4: Chinook Conservation Strategy for WRIA8, Page 32

¹⁰ Kahler, A Summary of the Effects, Page 43

¹¹ Ibid, Page 44

¹² Celedonia, Movement and Habitat, Page 2

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- 13 Tabor, Nearshore Habitat, 2001, Page 49
- 14 Tabor, Nearshore Habitat, 2004, Page 29
- 15 Celedonia, Movement and Habitat, Page 1
- 16 Chapter 4: Chinook, Pages 32 and 33
- 17 Kahler, A Summary of the Effects, Page 36
- 18 Ibid, Page 36
- 19 Multiple Contributors, Synthesis, Page 40
- 20 Tabor, Nearshore Habitat, 2004, Page 52
- 21 Ibid, Page 12
- 22 Chapter 4: Chinook, Pages 25 and 26
- 23 R. A. Tabor, Comments, November 18, 2008, Chinook salmon usage of Kirkland shorelines

Teresa Swan

From: kharrang@hotmail.com
Sent: Saturday, February 28, 2009 4:05 PM
To: Paul Stewart; Teresa Swan
Subject: SMP/ follow up

Thanks for your time, and for putting on today's meeting. This email is to volunteer myself for Paul's follow up discussion group, and to give just a couple feedback items. I told these points to various people at the meeting, but I thought it might be helpful to jot them down so you have them in the process.

- It seems to me the concept of "no net loss" is difficult for people to understand (except at the most superficial level) because it lacks objective measurability. I've read the detailed description in the baseline booklet, but anything whose measurements are "low/medium/high" etc. is inherently subjective. If the goal was to improve air quality, for example, one would have to come up with a scorecard of objectively measurable metrics (e.g., carbon monoxide levels, ozone levels, etc.). The same reasoning applies to education, hence the current emphasis on testing. It seems to be a weakness of the plan that ecological functions are not defined exclusively in terms of objectively measurable indicators so that progress (or regression) can be measured over time.
- Related to setbacks, I think it was Stacy that made the point that existing setback regulations (15' etc.) have produced an actual median setback of 42.5 feet. New more stringent setbacks are needed, it was assumed, to keep the actual median setback from decreasing over time as people move projects closer to the lakefront. Afterwards, however, Stacy admitted that she had no data to support this assumption. This seems like a key omission, because otherwise people may argue that since the existing regulations have produced an actual median setback of 42.5 in the past, they will continue to do so in the future. In order to back up the key justification for setback increases -- which have very significant impacts on owners -- it needs to be shown that existing regulations have produced an actual median setback that has decreased significantly over time, and will continue to decrease in the future. Otherwise, I fear that people will view the setback increases as merely a mechanism by which to force lakefront modifications that the City desires at the owners' expense.
- The facilitator attempted to silence the comment from one of the attendees about the conflict of interest with The Watershed Company, but I think the speaker had a legitimate point that should be addressed. I too was confused why a representative of a company that potentially stands to gain business from projects required by regulation is involved in the formulation of regulations. Is this a normal practice for the City and Planning Commission? I mentioned this to the representative from Watershed afterwards.

Overall, while it was a good idea to hold the meeting, I remain disappointed that there doesn't appear to be any type of partnership between property owners and the City, and especially that property owners are not doing anything to give the City and Planning Commission constructive feedback in the process. These are failings on the part of us owners that need to be addressed, in my opinion.

KJH

Teresa Swan

From: Peter Davidson [peterd@compassconstr.com]
Sent: Wednesday, March 11, 2009 9:44 AM
To: Teresa Swan
Subject: Meeting notes from the shoreline property owner's meeting

Hi Teresa,

In going through the notes of the meeting I'm not sure that my comment was represented. I asked if there are any measurable studies determining if in fact the Kirkland waterfront is impacting the migration of the salmonids. There was a response that they have been found in various points along the waterfront but not an answer as to what Kirkland's impact is compared to other municipalities or even to an expected migration rate. My point is that if we don't know what the starting point is there is no way to know if we are actually improving or just spending money.

If Salmonids are found at various points along the waterfront that seems to show that fish migration is successful already.

Peter Davidson
Compass Construction Management
425-761-6347 - Cell;

Attachment 21

From: Daved [Daved@waterfrontconstruction.com]
Sent: Friday, March 13, 2009 11:29 AM
To: Cathy Beam; MPaine@bellevuewa.gov; Peter Rosen;
jding@ci.kenmore.wa.us; EConkling@ci.renton.wa.us;
mvannostrand@ci.sammamish.wa.us;
Margaret.glowacki@seattle.gov; mhgreen@comcast.net;
Harry.reinert@kingcounty.gov; SBennett@ci.lake-forest-
park.wa.us; Paul Stewart; travis.saunders@mercergov.org;
Jean.White@kingcounty.gov; george.steirer@mercergov.org;
Burcar, Joe (ECY); Matt.torpey@mercergov.org; Teresa Swan;
Stacy Clauson; Robert Grumbach; Skowlund, Peter (ECY)
Cc: becky@marinellc.com; eride@msn.com; raa@vnf.com; Mark
Nelson; donovan@donovantracy.com; vanskamok@verizon.net;
Mike Collins; Kathy Richardson; Ken Sethney; greg@shoreline-
permitting.com
Subject: KIRKLAND STAFF POSITION ON ADDRESSING SCIENCE AND
INFORMATION USED BY WRIA 8 TO SUPPORT REMOVAL OF
BULKHEADS AND REDUCE PIERS

To Kirkland Planning Staff, Planning Commissioners, Houghton Community Council Members, and
SMP Update Parties of Interest,

BELOW 2 ISSUES ARE DISCUSSED:

- 1) THE MOST RECENT POSITION OF KIRKLAND STAFF REGARDING THE
QUESTIONING OF SCIENTIFIC STUDIES
- 2) E-MAIL TO JEAN WHITE OF WRIA 8 REGARDING THE SCIENCE AND
INFORMATION BEING USED TO IMPACT BULKHEADS AND PIERS ON LAKES
WASHINGTON AND SAMMAMISH

I am forwarding the e-mail below to each of you since according the SMP Update guidance local governments are required to use all available resources. Several local communities are going to great lengths to reach out and listen to the concerns of their waterfront property owners while others are putting little effort into public outreach on this vital issue. Although the first issue pertains to Kirkland it is applicable to each local government's SMP Update process.

While reaching out and listening is important, local government responsibility goes far beyond that as they have a duty to research the same issues that citizens do and to become the "local experts" since they are making decisions on what SMP Updates will and will not contain. They have a duty to conduct exhaustive research on issues brought before them by the property owners they are trusted to serve and protect. Local Staff, Commissions, Councils, and other parties work for the citizens of their community and not for the state so their posture during the SMP Update process should tilt toward that of their residents. Local staff and leaders have an obligation to ask tough

questions and challenge the state in areas where they are being asked to impact their citizens rather than exercising blind trust and simply going through the motions of a regulatory update required by the state.

Thus far, the process has resulted in property owners confronting their local staff and officials who have been unfairly placed on the front line of the battle for environmental protection and property rights. The intent of the SMP Update was not to place local government and their citizens at odds with one another but that is what has happened as a result of how the process is being approached by local staff.

Local governments have been directed by DOE to use “all available technical and scientific information” and to “solicit additional information through the public participation process”. This means it is the responsibility of local government staff and civic leaders to research these issues, ensure the science behind the requested changes are sound, and make informed decisions. Anything short of this does not meet the requirements of the SMP Update requirements from DOE.

As an example, in Kirkland the most recent Planning Commission SMP Update Packet dated March 5, 2009 on page 19 of 20 and in response to requests from the public for the City to address the scientific studies serving as the foundation for most of the changes contained in the SMP related to bulkheads and piers, City staff provided the following response:

“We have received a number of comments on the “science” being referenced in several previous staff reports and documents. The City has a responsibility and requirement to consult the best available science on shoreline issues, which staff has. The City is not in the position to undertake new scientific studies. In addition, the fundamental issue is that the City needs to prepare a plan that meets the requirements of the guidelines as adopted by the Legislature and obtain approval from the Department of Ecology. Therefore, staff is recommending that the continuing concerns about the scientific information that is available be addressed to the respective state and federal agencies charged with overseeing these studies or management of endangered species or SMA issues, including US Department of Fish and Wildlife, National Marine Fisheries Service, Washington Department of Fish and Wildlife, and Department of Ecology.”

I am requesting that the Planning Commission and Houghton Community Council ask the City of Kirkland staff to rethink this position in order to meet SMP Update Requirements. One of the most important things to remember is in requiring concerns to be addressed to the respective state and federal agencies is:

MANY OF THE EXISTING BULKHEADS AND PIERS ON LAKE WASHINGTON AND LAKE SAMMAMISH (AND THE PUGET SOUND) AND ALL OF THE ONES CURRENTLY APPROVED AND AWAITING CONSTRUCTION HAVE BEEN REVIEWED AND APPROVED BY EACH OF THE AGENCIES LISTED ABOVE UNDER AGENCY’S RESPECTIVE GUIDELINES AND ALL OF THE EXISTING STUDIES AND REPORTS IN PLACE SO CITIZEN CONCERNS ARE NOT WITH THESE AGENCIES. THE SMP COMPREHENSIVE UPDATE IS A LOCAL ISSUE AND AS SUCH LOCAL GOVERNMENTS MUST TAKE FULL RESPONSIBILITY. It is incumbent upon local

government to closely explore all scientific information available and challenge it as appropriate and as a means of supporting a separation of powers between local, state and federal governments and agencies.

Additionally, if this is allowed to happen the City will be setting the concerns of its citizens and questioning of the inconclusive and contradictory science being used to drive the process aside in order to meet requirements from the Legislature and DOE who are subsidized by citizens and are based on that same science. It also sends the message that the community outreach effort Kirkland has made, which has been more intense than any other, and all the time invested by staff, Planning Commissioners, Houghton Community Council Members, and property owners put into this effort was only for “show” and had no real meaning. In the meetings I attended Kirkland Planning Commissioners and Houghton Community Council Members expressed a strong desire to a balanced perspective to ensure their final recommendations respected property owner rights while understanding their responsibility to protect the environment. The questions asked during the presentation on the Shoreline Permitting Process were well thought out and displayed a sense of “wanting to get to the bottom of things”. The statement above does not support the goal of either of these local governing bodies in representing their citizens and neighbors and it invalidates the process and undermines public trust and involvement in local government.

On behalf of your waterfront property owners, please review the e-mail below as it brings into greater question the targeting of residential bulkheads and docks on Lake Washington, Lake Sammamish and the Puget Sound in general. If you take time to read any of the reports or studies associated with the changes being pushed, go to a coffee shop, take your regulatory hat off, and read them with a critical eye and from a balanced perspective. The science and the resulting actions being forced on private property owners just don't add up!!

SOME OF YOU MAY FIND PRESIDENT OBAMA'S POSITION ON THE USE OF SCIENCE VERY INTERESTING. IT IS CONTAINED TOWARD THE END OF THE E-MAIL BELOW.

No statements are intended to be personal in nature and are directed at the SMP Update process in general or according toward the actions or approach of a specific jurisdiction. The information is based on personal experience and in-depth understanding of the process and the **URGENCY** and **FUTURE IMPACT** that will occur if everyone does not exercise due diligence on this issue.

Thank you for your time and have a great weekend.

Dave Douglas
Permit Coordinator, Waterfront Construction, Inc.
Citizen and Property Owner, State of Washington

From: Daved

Sent: Wednesday, March 11, 2009 10:26 AM

To: 'White, Jean'

Subject: INFORMATION USED BY WRIA 8 TO SUPPORT REMOVAL OF BULKHEADS AND REDUCE

PIERS ON LAKE WASHINGTON AND LAKE SAMMAMISH

Hi Jean,

Hope you are doing well. I am writing you because I know you and I have a mutual respect for what each of us does professionally and because you know that Waterfront Construction has tried to play a beneficial role in legal permitting, environmentally and fish friendly pier and bulkhead design, shoreline restoration, and voluntary consulting and assistance with multiple agencies at the local, state and federal regulatory levels at no cost to the government or any other group. We have had spirited but cordial conversation on the many controversial issues surrounding overwater structures and bulkheads and the “science” used to drive the actions of regulatory agencies toward private property owners.

I have been doing some research and reading literature on overwater structures, bulkheads and other issues in marine and fresh water environments largely due to my observation over the years that “best available science” does not proportionately support the sweeping changes that DOE, WRIA 8, Puget Sound Partnership and other regulatory and environmental groups are using to specifically target private property owners. I have reviewed the limited literature directed at freshwater applications on the WRIA 8, WDFW and DOE and other agency websites and simply cannot make a connection on what is documented and the resulting action agencies are taking, especially on bulkheads in fresh water lakes and behind the OHWM in salt water. It’s as though the section reviews, executive summaries came from totally different research papers and the resulting action is clearly disproportionate. How the author(s) can review inconclusive raw data and the contradictory statements contained in each report or reference previously documented literature containing similar information and draw the conclusions they have baffles even the most creative of minds. To extrapolate and make inferences, hypotheses, and crossover applications from marine to fresh water environments, and even push mere thoughts to a point where sweeping changes on private property bulkheads and overwater structures in both the marine and fresh water hinge on them is unimaginable. Most of the research is targeted at the marine waters of the Puget Sound and not the fresh waters of Lake Washington and Lake Sammamish, and many of those are inconclusive at best.

The above discrepancies and my experience with how pier, bulkhead and shoreline renovation projects have contributed greatly to environmental improvements over the past 5 to 10 years lay the foundational basis for my monitoring and challenging the sweeping changes the state is trying to mandate on local governments through the SMP Update process. Those fortunate enough to live along the shoreline stand in the cross hairs of what regulatory and environmental groups hope to accomplish even though the argument is one sided and failure to recognize current strides of progress before moving forward is happening quickly. The primary contributing and limiting factors on salmon recovery are being overlooked and given a pass due to special interests and economics while individual property owners receive unfair and disproportionate scrutiny.

Many of the current studies reference documents from the 1970’s to 2003 which leads one to believe that very little additional or substantial evidence has been gathered to support many of the regulatory changes being requested.

I have reviewed:

Synthesis of Salmon Research and Monitoring
Protecting Nearshore Habitat and Functions in the Puget Sound
A Summary of the Effects of Bulkheads, Piers, and Other Artificial Structures and Shorezone
Development on ESA- Listed Salmonids in Lakes
Executive Summary: The Steering Committee Proposed WRIA 8 Chinook Salmon Conservation
Plan
What Does No Net Loss Mean in the 2003 SMA Guidelines
Executive Summary- Overwater Structures: Marine Issues
White Paper- Over-water Structures- Freshwater Issues
Puget Sound Salmon Recovery Plan

Although it would take someone in a full-time paid position to go through each of these in fine detail and provide the most thorough response I will direct my comments at the last paper listed; the Puget Sound Salmon Recovery Plan dated January 19, 2007. There is so much recovery emphasis placed on the Chinook and this document outlines the causes for the decline in great detail. That being said, the document should also lay the groundwork for where the strongest emphasis for recovery should and should not be placed. Although everyone plays a part in the recovery of all listed species and the environment in general, it is simply unfair, impractical and unreasonable to target a specific group out of proportion with the assumed impact without taking care of the further reaching and much more documented impacts cited for the decline.

A review of the Puget Sound Salmon Recovery Plan cites the following as the main and major contributing factors to the decline and listing of the Puget Sound Chinook Salmon.

- ? Early logging practices (p. 66)
- ? Dams (p. 66)
- ? Culverts (p. 66)
- ? Other Barriers (p. 66)
- ? Dikes (p.66)
- ? Fill or structures in riparian zones and estuaries (p.66)
- ? Timber harvest (p. 67)
- ? Agriculture (p. 69)
- ? Loss of estuarine sloughs and marsh areas (p. 69)
- ? Agriculture and other land uses (p. 69)
- ? Low flows related to water withdrawals for agriculture (p. 69)
- ? Water temperatures (p. 70)
- ? Urbanization (p. 70)
- ? Streams in heavily urbanized areas (p. 72)
- ? Sources of pollution (p. 72)
- ? Increase in impervious surfaces (p. 72)
- ? Sediments from urban areas containing trace metals, pesticides, herbicides, fertilizers, gasoline, and other petroleum products (p. 72)
- ? Wastewater treatment plants (p. 72)

- ? Byproducts from pulp mills, chemical factories, smelters, shipyards, and other industries (p. 72)
- ? Urbanized areas near the mouths of rivers (p. 72)
- ? Extensive dredging, diking and filling for flood control (p. 75)
- ? Water diversions and Hydroelectric Development (p. 77)
- ? Several major dams block access to historic Chinook salmon spawning and rearing habitat including Green Rover: Howard Hansen Dam and Cedar River: Cedar Falls Dam
- ? Passage at Chittenden Locks (p. 77)
- ? Major dams, blockages for water diversion, hatchery water supply, and small hydro development on several tributary streams (p. 77)
- ? Tributary barriers generate downstream impacts including interrupting flow and sediment transport, large woody debris recruitment and transport, nutrient supply, and elevating temperatures (p. 77)
- ? Physical barriers alter streamflow which increase salmon mortality (p. 78)
- ? Dams have also been cited as a major factor affecting bull trout in the Olympic Peninsula (p. 78)
- ? It is thought that diversion dams, hydroelectric facilities and pipeline crossings have formed migratory barriers in the Nisqually and lower Green Rivers (p. 78)
- ? Loss of habitat-forming processes (p. 79)
- ? The suite of pools, riffles, boulders, log jams, side channels, wetlands and other features of their rivers; and the saltwater slough, marshes, eelgrass and kelp beds in the marine environment (p. 79)
- ? Vegetation removal and construction along streambanks and shoreline (p. 79)
- ? Impact on the interchange of surface and groundwater in complex stream and wetland systems (p. 79)
- ? Many long lasting effects from timber harvest continue to degrade aquatic habitat (p. 79)
- ? Logging roads are an ongoing source of fine sediment and debris, with detrimental effects to salmon habitat (p. 79)
- ? Major land use activities, temporary and permanent removal of vegetation, long term increases in water temperature, clearcutting (p. 80)
- ? High temperatures may stress or kill salmon outright or limit the production of organisms they need for food (p. 80)
- ? Water temperatures above the tolerance thresholds for Chinook migration, rearing or emergence have been found in the Green/Duwamish River (p. 80)
- ? Sediment input from urban construction and agricultural practices (p. 81)
- ? The toxic mix of oil, grease, pesticides and other pollutants carried by stormwater runoff (p. 81)
- ? The control of runoff from urban street, parks and lawns and restoration of chemical balance is imperative for fish productivity (p. 81)
- ? Dikes and levees generally have maintenance requirements that prohibit vegetation, largely eliminating the production of food for salmon (p. 81)
- ? Channelization and floodplain structures such as dikes reduce river sinuosity, increasing water velocity and reducing the volume of habitat (p. 81)
- ? Restoring vegetation, hydrology, channel structure and essential food supplies for salmon (p. 82)
- ? High temperatures, lack of lwd, high coarse and fine sediment load, migration passage

barriers, loss of wetlands and off channel habitat, loss of channel migration opportunities, low instream flow (p. 86 major river and tributary chart)

Please note comment made regarding restoration potential

? “The greatest restoration potential for salmon habitat today probably occurs on these agricultural parcels of land, which still have no pavement or other extensive infrastructure which would be costly to modify or remove in order to restore habitat features.” (p. 70)

Modifications and threats to the function of the Puget Sound nearshore and marine environments for salmon include: (p. 76)

? 33% of Puget Sound Shorelines have been modified with bulkheads or other armoring (specific to Puget Sound)

? Loss of wetlands in major deltas (specific to Puget Sound)

? 3,500 Piers and docks in Puget Sound (specific to Puget Sound)

? 29,000 Small boat slips (non-location specific)

? 700 Large boat slips (non-location specific)

? Before 1900, 4,000 acres of tidal marshes and mudflats once existed (where Harbor Island and East and West Waterways now stand in Elliott Bay) (specific to Puget Sound)

? 75 “pocket estuaries” (specific to Puget Sound) stressed

? 40+ aquatic nuisance species (specific to Puget Sound)

? 972 municipal and industrial wastewater discharges into the Puget Sound Basin are permitted by DOE with permission for 180 to discharge metals

? 500,000 on-site sewage systems

? 16 major oil and hazardous material spills (>10,000 gallons) from 1985-2001 and 191 smaller spills from 1993-2001 releasing more than 70,000 gallons (specific to Puget Sound)

? More than 28,000 acres of (Puget Sound) bottom sediments are contaminated to the extent cleanup is warranted

Ongoing Conservation Measures in the Puget Sound Region (pgs. 87 through 91)

Regulatory Laws at the State Level:

? State Environmental Policy Act (SEPA)

? Shoreline Management Act (SMA)

? Growth Management Act (GMA)

? Floodplain Management Act

? Forest Practices Act

? Water Pollution Control Act

? Hydraulic Project Approval (HPA)

? Aquatic Lands Act

? Water Code and Water Resources Act

Legislation Directly Related to Salmon Recovery at the State Level:

? Salmon Recovery Planning Act

? Watershed Planning Act

? Salmon Recovery Funding Act

Laws Directly Related to Salmon Recovery at the Federal Level:

- ? Endangered Species Act Section 7 Consultation (ESA)
- ? National Environmental Policy Act (NEPA)
- ? Clean Water Act
- ? Federal Reclamation Act
- ? Coastal Zone Management Act
- ? Rivers and Harbors Act
- ? Wild and Scenic Rivers Act
- ? Fish and Wildlife Coordination Act
- ? Magnuson-Stevens Fishery Conservation Act
- ? Marine Mammal Protection Act
- ? Pacific Salmon Treaty

Figure 4.3 is merely conceptual and points out that the level of risk may vary across the aggregate of salmon populations. Plans are developed despite the absence of solid and conclusive data. (p. 140)

Watershed Profile Lake Washington/Cedar/Sammamish (pgs. 233 through 246)

This section points out that the Lake Washington/Cedar/Sammamish Watershed is dramatically different from what it was in the past. The main reasons listed are:

- ? Hiram M. Chittenden Locks (1916)
- ? Ship Canal dropping the lake level by nine feet
- ? Ship Canal being the lake's sole outlet
- ? Diversion of the Cedar River into Lake Washington
- ? Ship Canal and Ballard Locks not providing rich and diverse saltwater wedge, or transition zone, and estuary so important to migrating juvenile salmon
- ? Construction of the Ship Canal resulting in the loss of over 1,300 acres of shallow water and wetland habitat
- ? Fish runs suffered with construction of the Lansdburg Dam to provide drinking water to Seattle blocking 17 miles of spawning habitat (1901)
- ? Diking and channeling to prevent flooding
- ? Increased urbanization since the 1920's
- ? Loss of forest cover increasing frequency and size of high flows, and significant floods in the 1950's led to an expansion of levee systems in Cedar and Sammamish Rivers
- ? The railroad, which runs along 87% of the watershed's marine shoreline, curtailed beach forming ecological processes along the nearshore

Key Factors Contributing to the Current Status of the Salmon Population (pgs. 237 through 239)

Supporting Factors:

- ? Fish Ladder at Lansdburg Dam (dam was built by government)
- ? Middle Cedar River is rural and forested
- ? Upper two-thirds of Cedar River is almost entirely coniferous forest
- ? Instream flows, potential impacts of the sockeye hatchery with Chinook and other factors are considered in the monitoring process.
- ? Note: The effects of the above factors immediately above on Chinook are not well understood.

? The plan builds on regulatory and programmatic efforts, comprehensive plan updates, revisions to critical areas ordinances based on Best Available Science

Limiting Factors:

- ? Landsburg Diversion Dam
- ? Ship Canal
- ? Hiram Chittenden Locks
- ? The following factors listed in the table at the bottom of page 237 vary in the severity of their impact
 - o Altered Hydrology
 - o Loss of floodplain connectivity
 - o Lack of riparian vegetation
 - o Disrupted sediment processes
 - o Loss of channel and shoreline complexity
 - o Fish passage barriers
 - o Degraded water and sediment quality
- ? Each of the above have the corresponding factors listed in the table and bulkheads and piers are not listed

All of a sudden Bulkheads and Piers and Docks in Lake Washington and Lake Sammamish are finally noted as a contributing factor to the predation of juvenile Chinook (p. 239).

The following are listed as contributing factors:

- ? Shading from piers and docks affects food sources and contributes to predation
- ? Water quality limiting factors such as temperatures and dissolved oxygen need to be addressed
- ? Lake Washington's shoreline processes have been changed by regulated lake levels and extensive armoring
- ? Although there is limited information on piers, docks and bulkheads contained in this and other reports these structures have become a primary target of the recovery plan and the Puget Sound Partnership 2020 Draft Agenda.

Overall Approach to Habitat Recovery (p. 239)

The overall set of strategies is:

- ? Protect and manage upper watersheds
- ? Encourage direction of growth into existing urban areas
- ? Manage rural development
- ? Restore the Cedar mainstem to add more rearing habitat
- ? Where possible improve habitat in Lake Washington and the Ship Canal
- ? Restore the nearshore where possible; conduct experimental projects

Note: Piers, docks and bulkheads are not directly pointed out above but one of the most concerning strategies is the last one to "conduct experimental projects".

What exactly does this mean and with all the information available regarding nearshore habitat and the assumed impacts of bulkheads (although nearly all studies have been done in saltwater) why has the local SMP Update process which heavily targets single family residential bulkheads been

allowed to move forward before these “experimental” projects have been completed? This is not a new issue and both regulatory and non-regulatory agencies have had plenty of opportunity to experiment and provide sound recommendations that are assured success.

Cedar River Chinook Population (pgs. 241 and 242)

Statements on pages 240 and 241 may explain why single family residential piers, docks and bulkheads and private property owners in particular are the primary focus of the recover plan. On page 240 it says “protection and restoration actions are identified in the plan according to benefits to Chinook and “ease of implementation”. Although there is no data to support that piers, dock and bulkheads are a significant contributing factor to the impacts on salmon or their habitat, restrictions placed on single family property owners along the shoreline are high on the “ease of implementation” list.

Furthermore, on page 241 (Cedar River Chinook Population) it states in the first paragraph: Because Cedar River productivity is limited by lack of juvenile rearing habitat salmon, the management approach includes addressing the lack of pools and off-channel habitat in the mainstem so that juveniles delay their migration into shallow shoreline areas of Lake Washington for rearing, where they are subject to predation by bass and other predators. Improvements to the shoreline areas of Lake Washington and particularly the south end of the Cedar and around creek mouths are also expected to reduce predation on juvenile Chinook.

Lake Washington Actions within the Next 10 Years (p. 241)

Salmon friendly docks and shorelines along the lake will be encouraged through regulations, incentives, and targeted educational programs. Opportunities to remove bank hardening and restore shoreline vegetation and shallow-water habitat will be pursued, particularly at the south end of Lake Washington.

This section goes on to discuss enhancing river mouths, restoring habitat on North Lake Washington, Cedar River, Bear, North and Little Bear Creek, restoring habitat quantity, pool habitat areas, LWD, riparian function, and water quality including temperatures. None of this involves bulkheads or piers for which impacts, if they exist, are inconclusive.

Regarding the information above and citing that the Salmon Recovery Plan was adopted in 2007 after all the other reports cited at the beginning of this text were conducted, it must be questioned whether or not any of the agencies or professionals involved in this effort have taken a serious and balanced look at the improvements already made in Lake Washington, Lake Sammamish and the Puget Sound using regulations and guidelines already in place. Has anyone taken an impartial look at projects completed over the past 5 , 10 or 20 years and the progress made? Is anyone in the regulatory or environmental arena willing to recognize that property owners and the marine design, permitting and construction contractors have done and continue to do their part in improving the environment? Will anyone step away from the environmental hoopla and pursue special interest groups, upland developers in the upper watersheds and others who have contributed far more substantiated impacts on the environment than the bulkheads and piers of shoreline property owners whose assumed impacts are insignificant at best? Is there anyone on the side of the common citizen?

The Puget Sound Salmon Recovery Plan goes on and on for almost 500 pages in addition to other listed and unlisted reports that contain thousands of pages of contradictory and inconclusive “best available science”. Each of these take direct aim at bulkheads and piers of private property owners while failing to address the impacts that have been clearly identified as contributing to the decline of salmon and their habitat.

Finally, I would like to reference the recent article in the Bainbridge Shoreline Homeowners newsletter below regarding our new President’s position on “science”. Although I may disagree with the issue itself it clearly lays out the policy that this administration is going to use when laws and regulations are based on science.

Real science gets presidential backing.

Published March 9, 2009 Best Available Science , City Planning , Regional Planning
President Obama has entered the discussion about Puget Sound shoreline regulation in an interesting if tangential way. Let’s hope that the Puget Sound Partnership, Department of Ecology, and COBI planners were listening. Earlier today, he said...

From tiny embryonic cells to the large-scale physics of global warming, (Obama) urged researchers on Monday to follow science and not ideology as he abolished contentious Bush-era restraints on stem-cell research.

“Our government has forced what I believe is a false choice between sound science and moral values,” Obama declared as he signed documents changing U.S. science policy and removing what some researchers have said were shackles on their work.

“It is about ensuring that scientific data is never distorted or concealed to serve a political agenda — and that we make scientific decisions based on facts, not ideology,” Obama said.

Researchers said the new president’s message was clear: Science, which once propelled men to the moon, again matters in American life. AP story

The New York Times said...

President Obama’s directive on Monday to “guarantee scientific integrity” in federal policy making could have a far-reaching impact, affecting issues as varied as climate change, national security, protection of endangered species and children’s health.

... Mr. Obama delighted many scientists and patients by formally announcing that he was overturning the Bush administration’s limits on embryonic stem cell research. But the president also went one step further, issuing a memorandum that sets forth broad parameters for how his administration would choose expert advisers and use scientific data.

The document orders Mr. Obama’s top science adviser to help draft guidelines that will apply to every federal agency. Agencies will be expected to pick science advisers based on expertise, not political ideology, the memorandum said, and will offer whistle-blower protections to employees who expose the misuse or suppression of scientific information.
more

We call on Gov. Gregoire, Mayor Kordonowy and our City Council to embrace the President’s message and inform planners at all levels to rely on real science when formulating land use regulations.

The term “best available science” was wisely included in our state’s Growth Management Act, but it has come to mean something very different from “the best available scientific

information.”

In our state and local governments, when relevant environmental research has not been available, planners (almost universally non-scientists) have used studies from dissimilar environments in other parts of the US, or local work that has not been peer reviewed, to justify their personal agendas. They have even had the audacity to call the work “peer reviewed” when the “peers” were land use planners, trained to be bureaucrats not scientists.

Although the above article is directed at federal use of science, it will obviously have a trickle down effect on federal and local use of science either outright or through legal action. I appreciate your time and would like to understand your position (or that of others who work with you on such issues) because I have always appreciated your respectful demeanor even when we disagree. WRIA-8 recommendations are being referenced during several of the SMP Updates so how your non-regulatory but highly influential agency (and other state agencies such as DOE and PSP) arrived at the conclusions on private property piers and bulkheads to the point that they are disproportionately targeted is of great interest.

I look forward to hearing from you in writing before disseminating it to local planers and other groups. For the record and to be as transparent as possible I have forwarded it to several Board Members of SPOCA and to a couple contact points from Bainbridge Shoreline Homeowners. I apologize for any grammatical or spelling errors missed during review and editing.

I may see you at the upcoming meetings being scheduled by Zelma Ziemann of the Governor’s Office of Regulatory Assistance. I’ll be sure and say hello.

Sincerely,

Dave Douglas

Permit Coordinator, Waterfront Construction, Inc.

Member, Shoreline Property Owners and Contractors Association (SPOCA)

Citizen and Property Owner, State of Washington

Photograph of boat lift canopy with translucent cover



Photographs of site with multiple canopies (note: translucent fabric, as shown above, would need to be used as opposed to opaque fabrics used in these photographs)





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Last Saved: Monday, March 16, 2009*