PLANNING COMMISSION
REGULAR MEETING AGENDA

CALL TO ORDER & ROLL CALL 7:30 PM

APPEARANCES
This is the time set aside for members of the public to speak to the Commission about issues of concern. If you wish to speak, please consider the following points:
- Speak audibly into the podium microphone
- State your name and address for the record
- Limit your comments to three minutes
(Note: The Commission may limit the number of speakers and modify the time allotted. Total time for appearances: 15 minutes)

APPROVAL OF MINUTES Minutes from August 19, 2009

Agenda Item #1 7:50 PM
Regulation options of Shoreline Master Program update for shoreline vegetation conservation standards, including building setback standards.
**NOTE: Please bring your copy of the August 19, 2009 packet materials related to shoreline vegetation conservation standards, including building setbacks.**

OTHER BUSINESS Council Liaison Report
- Staff Comments
- Planned Absences for Future Meetings
- Announcements & Communications
- Next Regular Meeting: September 16, 2009

ADJOURN

AGENDA TIMES ARE APPROXIMATE
CALL TO ORDER:
Chair Cooper called the meeting to order at 7:31 PM in the Council Chambers, at 9611 SE 36th Street, Mercer Island, Washington.

ROLL CALL:
Chair Adam Cooper, Commissioners Kristen White, Jon Friedman, Steve Marshall, Bryan Cairns and Council Liaison Jahncke were present. Vice-Chair Eric Laschever was excused. City staff was represented by Shane Moloney, Assistant City Attorney; Steve Lancaster, Development Services Director; George Steirer, Principal Planner; and Travis Saunders, Planner.

APPEARANCES:
Bert Loosemore of 4639 Forest Avenue SE provided comment regarding the Shoreline Master Program update.

MINUTES:
The Planning Commission approved the minutes from the August 5, 2009 meeting.

REGULAR BUSINESS:
Agenda Item #1: Public Hearing for an update to the City’s Pedestrian and Bicycle Facilities Plan

Steve Lancaster, Director of Development Services, provided a presentation on the background of the Pedestrian and Bicycle Facilities Plan.

Connie Reckord, of the City’s Consultant Team, MacLeod Reckord, provided a summary on the Pedestrian and Bicycle Facilities Plan.

Steve Lancaster presented a summary on the public outreach conducted by the City, including comments and suggestions received.

Chair Cooper opened the hearing to public comments at 7:59 pm.

Lucia Pirzio-Biroli of 4212 West Mercer Way provided testimony.

Ryan Anthony Lent of 3011 78th Avenue SE #310 provided testimony.

Jane Rosenstein of 8408 SE 53rd Place provided testimony.

Jim Eanes of 2930 76th Avenue SE provided testimony.

Christina Faine of 8436 SE 36th Street provided testimony.

Walter Boos of 8343 East Mercer Way provided testimony.

Amy Fahey of 3708 86th Avenue SE provided testimony.
Chair Cooper closed the public comment period of the hearing at 8:16 pm.

The Commission provided comments and asked questions of staff and the City’s consultant team.

The Commission established the following work items for staff to address: Establish a priority list including safety, kids to school, commuting, recreation and “low hanging fruit” opportunities; review issue of electric assist bicycles; provide a re-cap of state law; provide alternatives for Park and Ride issues, including signage and routes; provide accident data; and provide “Safe Routes to School” data.

COUNCIL LIAISON REPORT:
None

STAFF COMMENTS:
ARCH is offering a training opportunity for City Council and Commission members on September 30, 2009, from 6-9pm at Bellevue City Hall.

PLANNED ABSENCES FOR FUTURE MEETINGS:
Commissioner Marshall may be absent at the September 2, 2009 meeting

ANNOUNCEMENTS AND COMMUNICATIONS:
None

NEXT REGULAR MEETING:
The next regular meeting is scheduled for September 2, 2009.

ADJOURNMENT:
The Planning Commission meeting was adjourned at 9:56 PM.

Respectfully submitted by Travis Saunders, Planner
To: City of Mercer Island Planning Commission
From: Travis Saunders, Planner
Re: September 2, 2009 Shoreline Master Program (SMP) Update Workshop
Date: August 27, 2009

Commissioners and Councilmember Jahncke:

This evening’s Shoreline Master Program update workshop contains the following agenda items:

Agenda item 1:
Agenda item 1 is carried over from the August 19, 2009 meeting. Please bring your Shoreline Master Program update packet materials from August 19th to the September 2, 2009 meeting. The Commission will be reviewing shoreline vegetation conservation standards (WAC 173-26-221(5), which includes setback and buffer standards. A staff presentation will be provided that explores the existing Mercer Island SMP standards; peer jurisdiction proposed standards; Washington Administrative Code (WAC) SMP guidelines; and Futurewise recommendations. Following the presentation, discussion, and deliberation, the Commission’s preliminary recommendation is requested for shoreline vegetation conservation standards.

During the course of the August 5, 2009 meeting, the Commission requested of staff the following items:

1. **Request:** Research the importance of January 1, 1992 in relation to shoreline stabilization standards set forth in WAC 173-26-231(C) **Staff findings:** Legislation governing shoreline protection became more stringent in 1992 and in an attempt to give deference to those homes built prior to January 1, 1992, they called them out as an exception: RCW 90.58.100 (6) “Each master program shall contain standards governing the protection of single family residences and appurtenant structures against damage or loss due to shoreline erosion. The standards shall govern the issuance of substantial development permits for shoreline protection, including structural methods such as construction of bulkheads, and nonstructural methods of protection. The standards shall provide for methods which achieve effective and timely protection against loss or damage to single family residences and appurtenant structures due to shoreline erosion. The standards shall provide a preference for permit issuance for measures to protect single family residences occupied prior to January 1, 1992, where the proposed measure is designed to minimize harm to the shoreline natural environment.”

2. **Request:** Revise draft shoreline stabilization standards contained in the August 5, 2009 Commission Workshop packet, Exhibit 5. **Staff findings:** Exhibit 5, 19.07.100(D)(4)(a) is being revised for clarity. Per the Commission’s direction, this revision will be brought forward at a future meeting.

3. **Request:** Research if any scientific studies have been conducted that focus on how fish respond to docks that have grated decking. **Staff findings:** The following response was provided by Barbara Nightingale of the Department of Ecology: “Although there have not been studies on fish behavior relative to grating, it is known that grating allows transmission of 50-60% of light, which meets the Army Corps of Engineers requirements and is reflected in a study from Battelle (Blanton et al. 2002). The Blanton study has lots of technical information relating more to large docks (i.e. ferry terminals). However,
information on grating and other light transmitting alternatives can be gleaned for freshwater systems and single-family docks.” At the Commission’s request, a copy of the Blanton study can be brought forward at a future meeting.

4. **Request:** Provide information regarding a local jurisdiction mentioned by Barbara Nightingale that developed dock regulations that varied from the Army Corps of Engineers (ACOE) standards for piling spacing. **Staff findings:** Staff followed up with Ms. Nightingale to find the subject jurisdiction is Kent. The rationale used to vary from the ACOE standards for piling spacing was that the water body in question is not a navigable water body, which means that it is not subject to review by the ACOE. Kent used other items such as full grated decking and non-treated materials to offset impacts from tighter piling spacing. At the Commission’s request, staff can incorporate Kent’s dock standard into the existing table provided in the June 17, 2009 packet, identified as Exhibit 8, for future review.

Itemized below are Exhibits for the September 2, 2009 Planning Commission meeting, which are contained in the packet materials from the August 19, 2009 meeting:

- **Exhibit A:** Shoreline Master Program Update Open House Preference Survey for Vegetation Conservation
- **Exhibit B:** Shoreline Vegetation Conservation Regulations Comparison Table
- **Exhibit C:** City of Kirkland Draft Shoreline Master Program Setback Reduction Options
- **Exhibit D:** City of Lake Forest Park Draft Shoreline Master Program Setback Reduction Alternatives
- **Exhibit E:** City of Redmond Draft Shoreline Master Program Development Standards

Should you have questions regarding the materials or the update process, feel free to contact me.
## I. VEGETATION CONSERVATION

<table>
<thead>
<tr>
<th>New Residential Lots</th>
<th>1st Preference</th>
<th>2nd Preference</th>
<th>3rd Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Regulation</strong> - The City currently does not have vegetation requirements for the shoreline area.</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Option A1</strong> - Require retention of existing native vegetation in the proposed setback.</td>
<td>0</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td><strong>Option A2</strong> - For those lots which already have impacted shorelines which are lacking native vegetation, require enhancement or revegetation with native plants within 25 feet of the OHWM.</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Option B1</strong> - Require retention of existing native vegetation in the proposed setback, but provide the option to pay a fee in lieu of providing the vegetation on site.</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Option B2</strong> - Provide incentive(s) for retaining/ replanting native vegetation 25 feet or greater dimension from OHWM. Incentives might be tied to lesser building setback or greater Gross Floor Area (GFA) or lot coverage.</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Option B3</strong> - Provide incentives for providing vegetation along side yards. This can be a good option for visual purposes as well as for wildlife corridors. Incentives might be tied to lesser building setback or greater lot coverage.</td>
<td>3</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>Option C1</strong> - Encourage retention of native vegetation 25 feet from OHWM (nonbinding policy).</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td><strong>Option C2</strong> - For those lots which already have impacted shorelines which are lacking native vegetation, encourage the enhancement or revegetation with native plants in area from OHWM to 25 feet from OHWM.</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Existing Residential Lots</th>
<th>1st Preference</th>
<th>2nd Preference</th>
<th>3rd Preference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Regulation</strong> - The City currently does not have vegetation requirements for the shoreline area.</td>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Option</td>
<td>Description</td>
<td>Score 1</td>
<td>Score 2</td>
</tr>
<tr>
<td>----------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>---------</td>
<td>---------</td>
</tr>
<tr>
<td><strong>Option A1</strong></td>
<td>As a requirement for new shoreline development, require revegetation with native plants within 25 feet of the OHWM.</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Option A2</strong></td>
<td>As a requirement for new shoreline development, require vegetation along side yards. This can be a good option for visual purposes as well as for wildlife corridors.</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td><strong>Option B1</strong></td>
<td>Create incentives to promote revegetation in area within 25 feet of the OHWM. Incentives might be tied to lesser building setback, greater Gross Floor Area (GFA), or greater lot coverage.</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td><strong>Option B2</strong></td>
<td>Provide incentives for providing vegetation along side yards. This can be a good option for visual purposes as well as for wildlife corridors. Incentives might be tied to lesser building setback, greater Gross Floor Area (GFA), or greater lot coverage.</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td><strong>Option B3</strong></td>
<td>Establish a policy for administering an educational program to encourage residents to practice more environmentally responsible vegetation enhancements near the shoreline.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Option C1</strong></td>
<td>Encourage revegetation in area landward of OHWM.</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Option C2</strong></td>
<td>Encourage vegetation along side yards. This can be a good option for visual purposes as well as for wildlife corridors.</td>
<td>4</td>
<td>1</td>
</tr>
</tbody>
</table>
Current Regulation
There are no current standards for vegetation conservation

A1. Retention of existing vegetation

Require retention of existing native vegetation in the proposed setback.

As a condition of new development, retention of native vegetation within set amount of space from OHWM shall be required.

Trees may be limbed-up to maintain views

Some of the required vegetated area can be left open for access and view maintenance

A2. Revegetation of shoreline

For those lots which already have impacted shorelines and are lacking native vegetation, require enhancement or revegetation with native plants within 25 feet or more of the OHWM.

As a condition of new development, revegetation or enhancement with native vegetation within 25' from OHWM shall be required.

Trees may be limbed-up to maintain views

Some of the required vegetated area may be left open for access and views

B1. Fee in lieu

Require retention of existing native vegetation in the proposed setback, but provide the option to pay a fee in lieu of providing the vegetation on site.¹

¹A fee in lieu program would require that the City acquire property or use park lands and street ends and restore/revegetate the shoreline prior to permitting the development in order to show No Net Loss.
B2. Incentives for Vegetation Conservation

See Building Setbacks and Impervious Surface Coverage for possible incentive programs.

B3. Incentives for Side Yard Vegetation

Provide incentives for providing vegetation along side yards. This can be a good option for visual purposes as well as for wildlife corridors. Incentives might be tied to lesser building setback or greater lot coverage.

C1. Encourage Retention of Native Vegetation

Encourage retention of native vegetation 25 feet from OHWM (nonbinding policy).

Note: without some provision to protect existing vegetation, it will be difficult to achieve no net loss.

C2. Encourage Revegetation with Native

For those lots which already have impacted shorelines which are lacking native vegetation, encourage the enhancement or revegetation with native plants in area from OHWM to 25 feet from OHWM.
I. Vegetation Conservation

Existing Residential Lots

Current Regulation
There are no current standards for vegetation conservation

A1. Revegetation of Shoreline

As a requirement for new shoreline development, require revegetation with native plants in area within 25 feet or more of the OHWM.

As a condition of new development, revegetation or enhancement with native vegetation 25' from OHWM shall be required.

Trees may be limbed-up to maintain views

Some of the required vegetated area may be left open for access and views

A2. Side Yard Vegetation

As a requirement for new shoreline development, require vegetation along side yards. This can be a good option for visual purposes as well as for wildlife corridors.

For existing residential lots, provide incentives for vegetation along side yards

B1. Incentives for Revegetation

Create incentives to promote revegetation in area within 25 feet of the OHWM. Incentives might be tied to lesser building setback or greater lot coverage.

B2. Incentives for Side Yard Vegetation

Provide incentives for providing vegetation along side yards. This can be a good option for visual purposes as well as for wildlife corridors. Incentives might be tied to lesser building setback, greater Gross Floor Area (GFA), or greater lot coverage.

B3. Environmental Education

Establish a policy for administering an educational program to encourage residents to practice more environmentally responsible vegetation enhancements near the shoreline.
I. Vegetation Conservation

C1. Encourage Retention of Native Vegetation

Encourage revegetation in area landward of OHWM.

Trees may be limbed-up to maintain views

Some of the required vegetated area can be left open for access and views

C2. Encourage Vegetation along Side Yards

Encourage vegetation along side yards. This can be a good option for visual purposes as well as for wildlife corridors.

For existing residential lots, encourage vegetation along side yards
## Shoreline Vegetation Conservation Regulations Comparison

<table>
<thead>
<tr>
<th></th>
<th>Setbacks</th>
<th>Vegetation Requirements</th>
<th>Impervious Surface Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existing Mercer Island</strong></td>
<td>25’ setback from Ordinary High Water Mark (OHWM)</td>
<td>None</td>
<td>• The maximum amount of impervious surface within the first 25’ from the OHWM is 10%&lt;br&gt;• The maximum amount of impervious surface allowed within 25-50 of the OHWM is 30%&lt;br&gt;• Overall lot coverage:</td>
</tr>
<tr>
<td><strong>Kirkland (Proposed)</strong></td>
<td>1. Residential Low Designation (north of CBD), except along Lake Ave West north of Lake Ave West Street End Park:&lt;br&gt;• 30% of average parcel depth with 30’ minimum and 60’ maximum&lt;br&gt;2. Residential Low Designation (north of CBD) along Lake Ave West south of Lake Ave West Street End Park:&lt;br&gt;• Average of the existing setback on adjacent properties, with 15’ minimum&lt;br&gt;3. Residential Medium/High:&lt;br&gt;• 25’ or 15% of the average parcel depth&lt;br&gt;4. Urban Mix Use and Residential Medium-High Designation (CBD and south of CBD):&lt;br&gt;• The greater of 25’ or 15% of the average parcel depth&lt;br&gt;5. Urban Conservancy:&lt;br&gt;• Outside the shoreline area, if possible, otherwise 50’&lt;br&gt;6. Natural:&lt;br&gt;• Outside the shoreline area, if possible, otherwise 50’</td>
<td>Preservation and restoration of existing trees and native vegetation can be used as mitigation to be granted a reduced setback. (see pp. 83-91 of the Kirkland draft language.)</td>
<td>1. Residential Low Designation - 50%&lt;br&gt;2. Residential Medium/High – 60%&lt;br&gt;3. Urban Mix Use – 80% except for the following: In the CBD zones, 100% for properties that do not abut Lake Washington; otherwise 90%&lt;br&gt;4. Urban Conservancy: 50%&lt;br&gt;5. Natural -50%</td>
</tr>
<tr>
<td><strong>Lake Forest Park (Proposed)</strong></td>
<td>1. Residential lots that are greater than 100’ deep – 50’ setback, reducible to 20’ with mitigation&lt;br&gt;2. Residential lots that are less than 100’ deep – 40’ setback, reducible to 20’ with mitigation</td>
<td>Preservation and restoration of existing trees and native vegetation can be used as mitigation to be granted a reduced setback. (see Chapter 7, pp. 7-14 through 7-15 of the Lake Forest Park draft language.)</td>
<td>1. RS-20 Zone - 25% of net-lot area&lt;br&gt;2. RS-15 Zone - 27.5% of net lot area&lt;br&gt;3. RS-10 Zone – 30% of net lot area&lt;br&gt;4. RS-7.2 Zone – 35% of net lot area</td>
</tr>
</tbody>
</table>
Relevant WAC Guidelines:

173-26-221(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 or restriction 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 Practices Act, except for conversion to other uses and those other forest practice activities over which local governments have authority. As with all master program provisions, vegetation conservation provisions apply even to those shoreline uses and developments that are exempt from the requirement to obtain a permit. Like other master program provisions, vegetation conservation standards do not apply retroactively 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 property, to 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 uses.

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, to 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, as described in WAC 173-26-201(2)(a). At a minimum, local governments should consult shoreline management assistance materials provided by the department and Management Recommendations for Washington's Priority Habitats, prepared by the Washington state department of fish and wildlife where applicable.

(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 may include setback or buffer requirements, clearing and grading standards, regulatory incentives, environment designation standards, or other master program provisions. Selective pruning of trees for safety and view protection may be allowed and the removal of noxious weeds should be authorized.

Futurewise Recommendation:

Futurewise recommends a particular strategy for jurisdictions that have highly developed shorelines (the following is an excerpt from an email sent to the City by Futurewise):

Use science-based “buffers” for less developed areas, and either “small buffers” or “setbacks” along with vegetation enhancement for highly developed areas (such as many cities along Lake Washington).

Generally, “small buffers/setbacks” are not based on science, but rather on the existing development patterns and the ease of development in the future. As a general rule, this approach would be inadequate. However, we support the small buffer/setback system in highly developed urban areas when: (1) there is little or no existing vegetation and high levels of degradation, (2) the location is carefully mapped and limited to these developed areas, and (3) the system includes a demonstrated commitment to enhancing these degraded shoreline areas where it is possible. In short, the smaller setbacks/buffers are compensated for by reasonable requirements to enhance vegetation both along the shoreline and in the water when opportunities exist. The result will be a gradual increase in vegetation and habitat for fish and small animals over time.

This approach accomplishes 3 things:

- Meet science requirement by using science-based buffers where possible
- Provide a reasoned alternative and justification for not using a science-based buffer where it is not possible
- Meet the requirements to plan for restoration of the jurisdictions degraded shorelines, and achieve overall improvements in shoreline ecological functions.
General Regulations

83.360 No Net Loss Standard and Mitigation Sequencing

1. Under WAC Chapter 173-26, uses and shoreline modifications along Kirkland’s shoreline shall be designed, located, sized, constructed and/or maintained to achieve no net loss of shoreline ecological functions.

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

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

4. In addition, uses shall be located, designed and configured to prevent significant adverse impacts on water quality, fish and wildlife habitat, and the environment and the need for new shoreline stabilization or flood hazard reduction measures.

5. Maintenance activities shall be conducted in a manner that minimizes impacts to fish, wildlife, and their associated habitat and utilizes best management practices.

83.370 Federal and State Approval

1. All work at or waterward of the OHWM requires permits or approvals from one or more of the following state and federal agencies: U.S. Army Corps of Engineers, Washington Department of Fish and Wildlife, Washington Department of Natural Resources, or Washington Department of Ecology.

2. Documentation verifying necessary state and federal agency approvals must be submitted to the City prior to issuance of a shoreline permit, including shoreline exemption. All activities within shoreline jurisdiction must comply with all other regulations as stipulated by state and federal agencies, local tribes, or others that have jurisdiction.

3. If structures are proposed to extend waterward of the inner harbor line, the applicant must obtain an aquatic use authorization from the Washington State Department of Natural Resources and submit proof of authorization with submittal of a Building Permit.

83.380 Shoreline Setback Reduction

1. Improvements permitted within the Shoreline Setback - See standards contained in KZC Section 83.190.2.

2. Shoreline Setback Reductions –
   a. In the Residential – L shoreline environment, the shoreline setback may be reduced by 2 feet if subject to the Historic Preservation provisions of KMC 22.28.048, but in no case
closer than 25 feet with the exception in the Residential L - shoreline environment south of the Lake Ave West street end where the minimum shoreline setback is 15 feet.

b. The required shoreline setback may be reduced to a minimum of 25 feet when setback reduction impacts are mitigated using a combination of the mitigation options provided in the table below to achieve an equal or greater protection of lake ecological functions. In the portion of the Residential-L environment located south of the Lake Ave W Street End Park, the required shoreline setback may be reduced to a minimum of 15 feet. The following standards shall apply to any reduced setback:

1) The minimum setback that may be approved through this reduction provision is 25 feet in width, except that properties in the Residential L – shoreline environment south of the Lake Street Ave street end may reduce to a minimum setback of 15 feet. Any further setback reduction below 25 feet or 15 feet, respectively, in width shall require approval of a shoreline variance application.

2) The City may accept previous actions that meet the provisions established in the setback reduction method chart in subsection d. below as satisfying the requirements of this section, provided that all other provisions are completed, including but not limited to the agreement noted in subsection 4) below are completed. The reduction allowance for previously completed reduction actions may only be applied once on the subject property.

3) Prior to issuance of a certificate of occupancy, the proponent shall provide a final as-built plan of any completed improvements authorized or required under this subsection.

4) All property owners who obtain approval for a reduction in the setback must record the final approved setback and corresponding conditions, including maintenance of the conditions throughout the life of the development, unless otherwise approved by the City, in a form acceptable to the City Attorney, and recorded with the King County Department of Records and Elections. The applicant shall provide land survey information for this purpose in a format approved by the Planning Official.

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

d. The chart below describes the setback reduction options:

<table>
<thead>
<tr>
<th>Shoreline Setback Reduction Options</th>
<th>Reduction Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Reduction (min. 25’ setback)</td>
<td>Residential-L, south of Lake Ave W Street End Park (min. 15’ setback)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Water Related Conditions or Actions</th>
<th>Residential L, south of Lake Ave W Street End Park (min. 15’ setback)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Presence of natural shoreline conditions (e.g., no hard structural shoreline stabilization measure) located at, below, or within 5 feet landward of the lake’s OHWM along at least 75 feet</td>
<td>Reduce required setback by 15’</td>
</tr>
</tbody>
</table>
## Shoreline Setback Reduction Options

<table>
<thead>
<tr>
<th>Shoreline Setback Reduction Options</th>
<th>Reduction Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reduction Allowance</strong></td>
<td><strong>Standard Reduction (min. 25’ setback)</strong></td>
</tr>
<tr>
<td>percent of the linear lake frontage of the subject property. This can include the removal of an existing hard structural shoreline stabilization measure and subsequent restoration of the shoreline to a natural or semi-natural state, including restoration of topography, and beach/substrate composition. This option cannot be used in conjunction with Method #2 below</td>
<td>15 percentage points</td>
</tr>
<tr>
<td><strong>2</strong> Presence of natural shoreline conditions (e.g., no hard structural shoreline stabilization measure) located at, below, or within 5 feet landward of the lake’s OHWM along at least 15 linear feet of the lake frontage of the subject property. This can include the removal of an existing hard structural shoreline stabilization measure and subsequent restoration of the shoreline to a natural or semi-natural state, including creation or enhancement of nearshore shallow-water habitat, beach/substrate composition. This option cannot be used in conjunction with Method #1 above;</td>
<td>Reduce required setback by 5 percentage points</td>
</tr>
<tr>
<td><strong>3</strong> Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish for a minimum of 25 feet in length. Opened watercourses must be provided with a native planted buffer at least 5 feet wide on both side of the stream, and must not encumber adjacent properties with a 5 foot wide buffer without express written permission of the adjacent property owner. A qualified professional must design opened watercourses. The opened watercourse shall be exempt from the buffer provisions of KZC 83.490. The opened watercourse is exempt from the buffer requirements and standards of KZC 83.510.</td>
<td>Reduce required setback by 5 percentage points</td>
</tr>
<tr>
<td><strong>4</strong> Hard structural shoreline stabilization measure is setback from the OHWM between 2 ft. to 4 ft based on feasibility and existing conditions and/are sloped at a maximum 3 Vertical (V): 1 Horizontal (H) angle to provide dissipation of wave energy and increase the quality or quantity of nearshore shallow-water habitat.</td>
<td>Reduce required setback by 5 percentage points</td>
</tr>
<tr>
<td><strong>5</strong> Soft shoreline stabilization measures are installed waterward of the OHWM. Soft shoreline stabilization measures may include the use of gravels, cobbles, boulders, and logs, as well as vegetation. The material shall be of a size and placed to remain stable and accommodate alteration from wind- and boat-driven waves and shall be graded to a maximum slope of 1 Vertical (V): 4 Horizontal (H).</td>
<td>Reduce required setback by 2 percentage points</td>
</tr>
</tbody>
</table>
### Shoreline Setback Reduction Options

<table>
<thead>
<tr>
<th>Upland Related Conditions or Actions</th>
<th>Reduction Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Standard Reduction (min. 25’ setback)</td>
</tr>
<tr>
<td>6 Installation of biofiltration/infiltration mechanisms in lieu of piped discharge to the lake, such as mechanisms that infiltrate or disperse surface water on the surface of the subject property. These mechanisms shall be sized to store a minimum of 70% of the annual volume of runoff water from the subject property, for sites with poor soils, or 99% of the annual volume of runoff water from the subject property, for sites with well-draining soils. This mechanism shall apply to sites where the total new or replaced impervious surface is less than or equal to 5,000 square feet. The mechanisms shall be designed to meet the requirements in the City’s current surface water design manual.</td>
<td>Reduce required setback by 2 percentage points</td>
</tr>
<tr>
<td>7 Increasing the width of the required landscape strip within the reduced shoreline setback a minimum of 5 additional feet in width.</td>
<td>Reduce required setback by 2 percentage points</td>
</tr>
<tr>
<td>6 Installation of pervious material for all pollution generating surfaces such as driveways, parking or private roads that allows water to pass through at rates similar to pre-developed conditions. Excluded from this provision is the private easement road of 5th Ave West in the Residential – L shoreline environment.</td>
<td>Reduce required setback by 2 percentage points</td>
</tr>
<tr>
<td>7 Limiting the lawn area within the shoreline setback to no more than 50 percent of the reduced setback area.</td>
<td>Reduce required setback by 2 percentage points</td>
</tr>
<tr>
<td>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.</td>
<td>Reduce required setback by 2 percentage points</td>
</tr>
</tbody>
</table>

**83.390 Site and Building Design Standards**

1. Water-enjoyment and non-water oriented commercial and recreational uses shall contain the following design features to provide for the ability to enjoy the physical and aesthetic qualities of the shoreline:
   a. Buildings are designed with windows that orient toward the shoreline.
b. Buildings are designed to incorporate outdoor areas such as decks, patios, or viewing platforms that orient toward the shoreline.

c. Buildings are designed with entrances along the waterfront façade and with connections between the building and required public pedestrian walkways.

d. Service areas are located away from the shoreline.

e. Site planning includes public use areas along waterfront public pedestrian walkways, if required under the provisions established in KZC 83.420, that will encourage pedestrian activity, including but not limited to:
   1) Permanent seating areas;
   2) Vegetation, including trees to provide shade cover; and
   3) Trash receptacles.

2. Exemptions – The following are exempt from the requirements of subsection 1:

   a. Non-water oriented commercial and recreational uses that are located on the east side of Lake Washington Blvd. NE/Lake Street or on the east side of 98th Avenue NE.

   b. Non-water oriented commercial and recreational uses where there is an intervening development between the shoreline and the subject property are exempt from the requirements of subsection (3) and (5) above.

3. Buildings shall not incorporate materials that are reflective or mirrored.

83.400 Tree Management and Vegetation in Shoreline Setback

1. Tree Retention -

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

   a. Tree removal when no development activity is proposed or in progress.

      1) An owner of a developed a property may remove up to 2 significant trees from their property within a 12 month period subject to the standards contained in Chapter 95 KZC.

      2) Replacement Standards in the Shoreline Setback –

         a) If a significant tree located within the shoreline setback area is to be removed, is damaged or has fallen, a 3–for-1 replacement is required as mitigation. The required minimum size of the replacement trees shall be 6 feet tall for a conifer and 2-inch caliper for deciduous or broad-leaf evergreen tree. See alternative mitigation option in subsection 2.d.below that may be proposed.

         b) In circumstances where the proposed tree removal includes a tree that was required to be planted under the provisions of this section, the required tree replacement shall be addressed under the provisions of subsection 4 below, which permits a 1:1 replacement.

         c) For required replacement trees, a planting plan showing the location, size and species of the new trees is required to be submitted and approved to by the Planning Official. All replacement trees in the shoreline setback must be selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.

         d) An alternative mitigation option may be proposed if an applicant can demonstrate that it is not feasible to plant all of the required mitigation trees on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, and minimum spacing requirements for the trees to be planted.
The alternate mitigation must be equal or superior to the provisions of this section in accomplishing the purpose and intent of maintaining shoreline ecological functions and processes. This may include, but shall not be limited to, a riparian restoration plan consisting of shrubs, or groundcovers selected from the Kirkland Native Plant List which shall equal at a minimum 80 square feet for each tree to be replanted. The applicant shall submit a planting plan to be reviewed by the Planning Official or Urban Forester, who may approve, approve with conditions, or deny the request.

b. Tree removal when development activity is proposed or in progress.

1) **Submittal Requirements in the Shoreline Setback** –
   a) A site plan showing the approximate location of significant trees, their size (DBH) and their species, along with the location of existing structures, driveways, access ways and easements and the proposed improvements.
   b) An arborist report stating the size (DBH), species, and assessment of health of all trees located within the shoreline setback. This requirement may be waived by the Planning Official if it is determined that proposed development activity will not potentially impacts significant trees within the shoreline setback.

2) **Tree Retention Standards in the Shoreline Setback** - Within the shoreline setback, existing significant trees shall be retained, provided that the trees are determined to be healthy and windfirm by a qualified professional, and provided the trees can be safely retained 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.

3) **Replanting Requirements in the Shoreline Setback** –
   a) If the Planning Official approves removal of a significant tree in the shoreline setback area, then a three (3) for one (1) 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. See alternative mitigation option in subsection 3) c. below that may be proposed.
   b) For required replacement trees, a planting plan showing location, size and species of the new trees is required. All replacement trees in the shoreline setback must be selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.
   c) An alternative mitigation option may be proposed if an applicant can demonstrates that it is not feasible to plant all of the required mitigation trees on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, and minimum spacing requirements for the trees to be planted.

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

2. **Tree Pruning** - Non-destructive thinning of lateral branches to enhance views or trimming, shaping, thinning or pruning of a tree necessary to its health and growth is allowed, consistent with the following standards:
a. In no circumstance shall removal of more than one-third (1/3) of the original crown be permitted;

b. Pruning shall not include topping, stripping of branches or creation of an imbalanced canopy;

c. Pruning shall retain branches that overhang the water to the maximum extent possible; and

d. Pruning shall not directly impact the nearshore functions and values including fish and wildlife habitat.

3. Required Vegetation in the Shoreline – Riparian vegetation contributes to shoreline ecological functions in a number of different ways, including maintaining temperature, removing excessive nutrients and toxic compounds, attenuating wave energy, removing and stabilizing sediment and providing woody debris and other organic matter. In order to minimizing potential impacts to shoreline ecological functions from development activities, the following shoreline vegetation standards are required:

a. Minimum Landscape Standard Compliance –

1.) Location –

   a) Water-dependent Uses or Activities - Those portions of water-dependent development that require improvements adjacent to the water’s edge, such as fuel stations for retail establishments providing gas sales, haul-out areas for retail establishments providing boat and motor repair and service, boat ramps for boat launches, swimming beaches or other similar activities shall plant native vegetation on portions of the nearshore riparian area located along the water’s edge that are not otherwise being used for the water-dependent activity.

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

2) Planting Requirements –

   a) For uses other than those list below in subsection 2) b), the vegetated portion of the nearshore riparian area shall average 10 feet in depth from the OHWM, but may be a minimum of 5 feet wide to allow for variation in landscape bed shape and plant placement. Total square feet of landscaped area shall be equal to a continuous 10-foot wide area.

   b) For Detached, Attached or Stacked Dwelling Units within the Residential – M/H shoreline environment, the vegetated portion of the nearshore riparian area shall average 15 feet in depth from the OHWM. Total square feet of landscaped area shall be equal to a continuous 15-foot wide area.

   c) The public access pathway required under Section 83.420 may extend into the required landscape strip as necessary to meet the public access requirements, provided that the overall width of the landscape strip is maintained.

   d) Installation of native vegetation shall consist of a mixture of trees, shrubs and groundcover and be designed to improve habitat functions. At least 3 trees per 100 linear feet of shoreline must be included in the plan, with portions of a tree rounded up to the next required tree.

   e) Plant materials must be native and selected from the Kirkland Native Plant List, or other native or shoreline appropriate species approved by the Planning Official or Urban Forester.

b. Use of Existing Vegetation - The City may accept existing native trees, shrubs and groundcover as meeting the requirements of this subsection, including vegetation previously installed as part of a prior development activity, provided that the existing vegetation provides a landscape strip at least as effective in protecting shoreline ecological functions as the required vegetation. The City may require the applicant to plant trees, shrubs, and
groundcover according to the requirements of this subsection to supplement the existing vegetation in order to provide a buffer at least as effective as the required buffer.

c. **Landscape Plan Required** - The applicant shall submit a landscape plan that depicts the quantity, location, species, and size of plant materials proposed to comply with the requirements of this subsection, and shall address the plant installation and maintenance requirements set forth in KZC Section 95.45. Plant materials shall be identified with both their scientific and common names. Any required irrigation system must also be shown.

d. **Vegetation Placement** – Vegetation selection and placement shall comply with the following standards:

1) Vegetation shall be selected and positioned on the property so as not to obscure the public view within designated view corridors from the public right-of-way to the Lake and the shoreline on the opposite side of the Lake at the time of planting or upon future growth.

2) Vegetation may be selected and positioned to maintain private views to the water by clustering vegetation in a selected area, provided that the minimum landscape standard is met.

e. **Alternative Compliance** - Vegetation required by this subsection shall be installed unless the applicant demonstrates one of the following:

1) The vegetation will not provide shoreline ecological function due to existing conditions, such as the presence of extensive shoreline stabilization measures that extend landward from the OHWM; or

2) It is not feasible to plant all of the required vegetation on the subject property, given the existing tree canopy coverage and location of trees on the property, the location of structures on the property, or minimum spacing requirements for the vegetation to be planted; or

3) The vegetation will substantially interfere with the use and enjoyment of the portion of the property located between the residence and OWHM because the primary structure is located within 15 feet of the OHWM; and

4) That alternate measures will be equal or superior to the provisions of this subsection in accomplishing the purpose and intent of maintaining and improving shoreline ecological functions and processes. Examples include, but are not limited to:

   For a proposed alternative to the required vegetation of the in the shoreline setback area:
   a) Softening or removal of existing hard shoreline stabilization measures or portions thereof.
   b) Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish.

   For a proposed modification to the tree plantings required as part vegetation in the shoreline setback:
   c) Increasing the width of the required vegetation in the shoreline setback by a minimum of 5 additional feet.

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

4. **Responsibility for Regular Maintenance**.

   a. The applicant, landowner, or successors in interest shall be responsible for the regular maintenance of vegetation required under this section. Plants that die must be replaced in
kind or with similar plants contained on the Native Plant List, or other native or shoreline
appropriate species approved by the Planning Official or Urban Forester.

b. All required vegetation must be maintained throughout the life of the development. Prior to
issuance of a certificate of occupancy, the proponent shall provide a final as-built landscape
plan and a recorded agreement to maintain and replace all vegetation that is required by the
City.

83.410 View Corridors

1. General - Development within the shoreline areas located west of Lake Washington Boulevard
and Lake Street South shall include public view corridors that provide the public with an
unobstructed view of the water. The intent of the corridor is to provide an unobstructed view from
the adjacent public right-of-way to the Lake and the shoreline on the opposite side of the Lake.

2. Standards -
   a. For properties lying waterward of Lake Washington Boulevard and Lake Street South, a
      minimum view corridor of thirty percent of the average parcel width must be maintained. A
      view of the shoreline edge of the subject property shall be provided if existing topography,
      vegetation, and other factors allow for this view to be retained.
   b. The view corridors approved for properties located in the UM Shoreline Environment
      established under an approved Master Plan or zoning permit approved under the provisions
      of Chapter 152 KZC shall continue to comply with those requirements. Modifications to the
      proposed view corridor shall be considered under the standards established in the Master
      Plan or approved zoning permit.

3. Exceptions - The requirement for a view corridor does not apply to the following:
   a. The following water-dependent uses:
      1) Piers and docks associated with a marina or moorage facility for a commercial use;
      2) Piers, docks, moorage buoys, boatlifts and canopies associated with Detached, Attached
         and Stacked Unit uses; and
      3) Tour boat facility, ferry terminal or water taxi, including permanent structures up to 200
         square feet in size housing commercial uses ancillary to the facility.
      4) Public Access Pier or Boardwalk
      5) Boat launch
   b. Public Parks
   c. Properties located in the UM Shoreline Environment within the Central Business District
      zone.

4. View corridor location - The location of the view corridor shall be designed to meet the following
location standards and must be approved by the Planning Official.
   a. If the subject property does not directly abut the shoreline, the view corridor shall be designed
to coincide with the view corridor of the properties to the west.
   b. The view corridor must be adjacent to either the north or south property line of the subject
property, whichever will result in the widest view corridor, considering the following, in order
of priority:
      1) Locations of existing view corridors.
      2) Existing development or potential development on adjacent properties, given the
         topography, access and likely location of future improvements.
      3) The availability of actual views of the water and the potential of the lot for providing those
         views from the street.
## SHORELINE SETBACK REDUCTION ALTERNATIVES

<table>
<thead>
<tr>
<th>Reduction Mechanism</th>
<th>Reduction Allowance for Lots &lt; 100 feet in depth</th>
<th>Reduction Allowance for Lots &gt; 100 feet in depth</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water Related Actions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Removal of an existing bulkhead covering at least 75 percent of the 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;</td>
<td>15 feet</td>
<td>20 feet</td>
</tr>
<tr>
<td>2. Removal of an existing bulkhead covering at least 25 percent 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 restoration of topography, beach/substrate composition, and vegetation;</td>
<td>10 feet</td>
<td>15 feet</td>
</tr>
<tr>
<td>3. Opening of previously piped on-site watercourse to allow potential rearing opportunities for anadromous fish;</td>
<td>10 feet</td>
<td>10 feet</td>
</tr>
<tr>
<td>4. Preservation of existing natural shoreline conditions (e.g., no bulkhead or other unnatural shoreline features such as upland impervious surfaces or other structural alterations) within 5 feet of the OHWM, including preservation of existing native vegetation.</td>
<td>10 feet</td>
<td>15 feet</td>
</tr>
<tr>
<td>5. Preservation of existing trees and native vegetation and restoration of native vegetation, as necessary in at least 75 percent of the remaining Lake Washington setback area. Up to 25 percent of the setback area can be comprised of existing non-invasive, non-native vegetation. Up to 25 percent of the lake frontage may be used for improved shoreline access, provided in no case shall access be restricted to less than 15 feet of frontage and access areas are located to avoid areas of greater sensitivity and habitat value. (Note: this incentive cannot be used by any properties that currently have native vegetation in 75% of the remaining setback area. The reduction would only be granted if ecological functions would be improved relative to the existing condition.)</td>
<td>10 feet</td>
<td>15 feet</td>
</tr>
</tbody>
</table>
Chapter 7: Specific Shoreline Use Policies and Regulations

Reduction Mechanism

<table>
<thead>
<tr>
<th>Reduction Allowance for Lots &lt; 100 feet in depth</th>
<th>Reduction Allowance for Lots &gt; 100 feet in depth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preservation of existing trees and native vegetation and restoration of native vegetation in at least 25 percent of the remaining Lake Washington setback area. Up to 25 percent of the lake frontage may be used for improved shoreline access, provided in no case shall access be restricted to less than 15 feet of frontage and access areas are located to avoid areas of greater sensitivity and habitat value. (Note: this incentive cannot be used by any properties that currently have native vegetation in 25% of the remaining setback area. The reduction would only be granted if ecological functions would be improved relative to the existing condition.)</td>
<td>5 feet 10 feet</td>
</tr>
</tbody>
</table>

Upland Related Actions

7. Installation of biofiltration/infiltration mechanisms such as bioswales, created and/or enhanced wetlands, or ponds that exceed standard stormwater requirements.

8. Installation of a “green” roof in accordance with the standards of the LEED Green Building Rating System.

9. Installation of pervious material for driveway or road construction.

10. Limiting total impervious surface in the reduced setback area to less than 5 percent.

11. Preserving or restoring at least 20 percent of the total lot area outside of the reduced setback as native vegetation. No more than 20 percent of the total lot area can be lawn.

j. Any further setback reduction beyond that allotted in this Section shall require approval of a shoreline variance application.

B. Accessory structures greater than one hundred fifty (150) square feet that are not water-dependent or water-related are prohibited within the residential setback from the OHWM. Accessory structures shall not exceed a maximum height of twelve (12) feet.

SIGNS

Applicability
20D.150.50-050 Shoreline Development Standards
The following chart establishes shoreline-specific development standards in the different shoreline environment designations.

<table>
<thead>
<tr>
<th>DEVELOPMENT STANDARDS</th>
<th>SHORELINE ENVIRONMENT</th>
<th>Aquatic</th>
<th>Natural</th>
<th>Urban Conservancy</th>
<th>Shoreline Residential</th>
<th>High Intensity/Multi-Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture and Resource Management</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Density</td>
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<td>.10 du/ac</td>
<td>.10 du/ac</td>
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</tr>
<tr>
<td>Buffer/setback</td>
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<tr>
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<tr>
<td>Minimum lot frontage</td>
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<tr>
<td>Maximum building height</td>
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<tr>
<td>Utilities</td>
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<td>n/a</td>
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<tr>
<td>Buffer/setback</td>
<td>n/a</td>
<td>n/a</td>
<td>200 feet</td>
<td>200 feet</td>
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<td>Maximum impervious surface</td>
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<td>Buffer/setback</td>
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<td>Maximum impervious surface</td>
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<td>Minimum lot frontage</td>
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<tr>
<td>Maximum building height</td>
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Notes:
1. Subject to 20D.150.60, Shoreline Buffers. Transportation crossings shall be allowed and not subject to buffer setbacks provided they meet 20D.150.60-010.
2. The height limit is restricted to that portion of the building physically located within the Shoreline jurisdiction.
4. Can go up to 1.0 FAR with TDRs.
5. See 20C.60.25-020
6. Outside of Downtown and can go up to .70 FAR with TDRs. In Downtown, 1.25 FAR without TDRs per site or at least 10,000 sq. ft. of GFA.
7. This is the buffer setback from Lake Sammamish, where the majority of the Shoreline Residential environment is designated. See 20D.150.60-020, Lake Sammamish Setback.
8. Residential density in Downtown varies with lot size up to 66 du/acre per site. Outside of Downtown is .12 du/acre per site.
9. Varies between 75 and 100 percent impervious surface per site by Downtown Design District and underlying zoning.
10. du/ac = dwelling units per acre

Note that n/a = not applicable in the shoreline environment.

20D.150.60 Shoreline Buffers

20D.150.60-010 Shoreline Buffers.

(1) Shoreline buffers are established for Type I streams; those streams identified as Shorelines of the State. Stream buffers for the Shorelines of the State are established for the Sammamish River, Bear Creek, and Evans Creek as follows:

(a) Sammamish River:
   - North of Puget Sound Energy powerline crossing: 150-foot inner buffer plus a 50-foot outer buffer
   - South of Puget Sound Energy powerline crossing: 150-foot buffer

(b) Bear Creek:
   - West of Avondale Road: 150-foot buffer
   - East of Avondale Road: 150-foot inner buffer plus a 50-foot outer buffer

(c) Evans Creek: 150-foot inner buffer plus a 50-foot outer buffer

Buffers are established to protect the integrity, function and value of the riparian corridor and shall be an area of undisturbed vegetation.
where development is prohibited, subject to (2) through (5) below. There are no building setbacks from these buffers.

Where a city-sponsored stream or river restoration project remeandered a Type I stream, adjacent buffers may be reduced so that the buffers will extend no farther than the extent of the buffers immediately prior to the restoration project provided no net loss of shoreline ecological functions can be demonstrated and the reduced buffer is no less than 100 feet in width. This provision shall not be construed to allow automatic reduction of the buffer on the corresponding opposite side of the stream when the stream is being located further away from said property.

(2) Subject to (3) through (5) below, maximum clearing and grading within the outer 50-foot buffer is 35% of the outer buffer area. Nothing in this provision shall be construed to require remediation of existing situations where the current clearing and grading is in excess of 35%. Subject to (3) through (5) below, no net effective impervious surfaces may be created within this area.

(3) Except as otherwise specifically permitted in this section, 20D.150.60-010 or in any other portion of the Shoreline Master Program, development, including clearing, grading, disturbing or altering of a stream buffer is strictly prohibited, except for the following activities that are permitted within all buffer areas:
   (a) Stormwater conveyance systems and underground utilities;
   (b) Trails subject to the Public Access policies and regulations of the Shoreline Master Program; and
   (c) Bridges which are part of a regional transit system where there is a demonstrated public need and the location has been selected through a regional transit planning process. Buffer setbacks do not apply to transportation crossings; however, buffer crossing impacts shall be minimized and mitigated.

(4) Businesses currently located in the stream buffers or stream setbacks may continue to operate. A non-conforming use in the stream buffers or stream setbacks may be expanded provided the expansion does not result in a net loss of shoreline ecological functions over existing conditions. Non-conforming structures may be maintained and repaired and may be enlarged or expanded provided said enlargement does not extend the structure closer to the shoreline. Businesses currently located in the stream setbacks may sell their land to entities for redevelopment in the same general land use category (e.g. an industrial user may sell to a different type of industrial user), who may continue forward as a nonconforming use and with the existing nonconforming structures and may also redevelop pursuant to this
section, 20D.150.60-010 and other applicable portions of the Shoreline Master Program.

(5) In any High Intensity/Multi-Use location within a buffer where the land is actively being used as part of a legitimate business operation, such land including either structures or active operational areas, established prior to January 1, 2008, may continue to operate. New structures, pavement, and other improvements are permitted within this area so long as incremental environmental benefit is provided and no net loss of shoreline ecological functions id demonstrated.

20D.150.60-020 Lake Sammamish Setback.
Lake Sammamish has no buffer (as noted in 20D.150.60-010 above) but rather has a building setback. The waterfront-building setback for new development and redevelopment (torn downs) along Lake Sammamish shall be a minimum of 35 feet. The building setback can be reduced to 20 feet if the setback area is revegetated with primarily native vegetation. Establishment of a tree canopy is encouraged. No constructed structures other than those required for waterfront access/docks are allowed within the 20-foot setback. The applicant shall record on the title documentation from the City of Redmond confirming that the structure has been built under the flexible setback option and as such, the structure is conforming and the area within the 20 foot lakefront setback is to remain planted primarily with native vegetation (as described above). The City shall assist the applicant in determining appropriate native vegetation requested, and will coordinate with the applicant on the planting success the following year. New development adhering to the 35-foot setback and/or reconstruction that involves greater than 50% the value of existing improvements shall be required to plant 50% of the area in the minimum 20 foot building setback with native vegetation.

20D.150.60-030 Buffer and Setback Measurements
Shoreline buffers and waterfront-building setbacks are measured from the ordinary high water mark.

20D.150.70 In-Water Structures

20D.150.70-010 Purpose.
The purpose of this chapter is to provide standards and guidelines for the location and design of docks, marinas, boat launches, and similar in-water structures that have the potential to adversely impact natural shoreline resources.

20D.150-70-020 Applicability.

(1) All in-water structures shall comply with the standards of this chapter.
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