WHEREAS, in 1971 the State of Washington passed the Shoreline Management Act governing the adoption of Shoreline Master Programs, as currently set forth within Chapter 58 of Title 90 of the Revised Code of Washington, and subject to the Washington State Department of Ecology’s administrative rules contained within Title 173 of the Washington Administrative Code; and

WHEREAS, in 1974 the City adopted its Shoreline Master Program; and

WHEREAS, in 2003 the State of Washington passed new guidelines for the development and updating of local Shoreline Master Programs, which require updating of Mercer Island’s Shoreline Master Program; and

WHEREAS, in 2007 the City applied for and obtained a grant from the Washington State Department of Ecology to assist in the preparation and adoption of a mandated update to the Mercer Island Shoreline Master Program; and

WHEREAS, from 2009 to 2011 the Mercer Island Planning Commission held 29 public meetings (including two public hearings), and on April 6, 2011, sent a draft Shoreline Master Program update to the Mercer Island City Council for review; and

WHEREAS, from April 2011 to August 2011, the Mercer Island City Council considered the Planning Commission’s recommendation, public comment, and other available information in six public meetings (including one public hearing), and on August 1, 2011, adopted Resolution No. 1440 stating the City Council’s intent to adopt the Shoreline Master Program update upon approval by the Washington State Department of Ecology; and

WHEREAS, the draft Shoreline Master Program update was submitted to the Washington State Department of Ecology for review on March 16, 2012; and
WHEREAS, from October 22, 2012 to November 26, 2012, the Washington State Department of Ecology accepted public comments on the draft Shoreline Master Program update including one public hearing; and

WHEREAS, on March 4, 2013, the City Council reviewed City staff’s proposed responses to the public comments received during the Washington State Department of Ecology’s comment period, which were submitted to the Washington State Department of Ecology on March 15, 2013; and

WHEREAS, on May 3, 2013, the Washington State Department of Ecology submitted documents to the City containing required and requested changes to the draft Shoreline Master Program update; and

WHEREAS, in June 2013, the City Council discussed the Washington State Department of Ecology’s required and requested changes and accepted many of these changes, but provided alternative proposals relating to the definition of “wetland manual;” width of moorage facilities (i.e. docks); vegetation conservation; and dock redevelopment and repair; which were provided to the Washington State Department of Ecology in a letter dated July 1, 2013; and

WHEREAS, on October 7, 2013, the Washington State Department of Ecology responded to Mayor Bassett’s July 1, 2013 letter accepting the City’s alternative proposals relating to the definition of “wetland manual;” vegetation conservation; and dock redevelopment and repair; but offered new alternatives relating to width of moorage facilities (i.e. docks); and

WHEREAS, on November 4 and 18, 2013, the City Council discussed the Washington State Department of Ecology’s new alternatives relating to width of moorage facilities (i.e. docks); and other proposed changes to definitions; and

WHEREAS, the City has completed the preparation of supporting information and background material for the Shoreline Master Program update; and

WHEREAS, the updated Shoreline Master Program provides for additional protection and development standards on Lake Washington; and

WHEREAS, development applications are reviewed for compliance with these regulations; and

WHEREAS, the Growth Management Act, RCW 36.70A.480, provides that the goals and policies of the Shoreline Master Program are considered an element of the City’s Comprehensive Plan, and all other portions of the Shoreline Master Program shall be considered part of the City’s development regulations; and

WHEREAS, a State Environmental Policy Act Determination of Non Significance for the 2011 Shoreline Master Program update was issued on March 15, 2010; and
WHEREAS, in accordance with WAC 365-195-620, a notice of intent to adopt the proposed Mercer Island Shoreline Master Program was received by the State of Washington Department of Commerce on March 14, 2012; and

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF MERCER ISLAND, WASHINGTON, DO ORDAIN AS FOLLOWS:

Section 1. Repeal MICC Section 19.07.100, Shoreline Areas. MICC 19.07.100 “Shoreline Areas” is hereby repealed in its entirety.

Section 2. Repeal and Replace MICC Section 19.07.110, Shoreline Management Master Program. MICC 19.07.110 “Shoreline Management Master Program” is hereby repealed in its entirety, replaced with the following new Section 19.07.110 “Shoreline Master Program,” and shall read as follows:

19.07.110 Shoreline Master Program.

A. Authority and Purpose.

1. Authority. This Section is adopted as part of the Shoreline Master Program of the city. It is adopted pursuant to the authority and requirements of Chapter 90.58 RCW and Chapter 173-26 WAC.

2. Applicability. The requirements of this Section apply to all uses, activities and development within the shorelands, unless specifically exempted. All proposed uses and development occurring within shoreline jurisdiction must conform to chapter 90.58 RCW, the Shoreline Management Act.

3. Purpose and Intent. It is the purpose and intent of this section to achieve the Shoreline Master Program (SMP) mandates of the State of Washington and to adopt property development standards within the shorelands that protect the health, safety, welfare, values and property interests of the City of Mercer Island and its residents.

4. Relationship with other Mercer Island Codes and Ordinances. This section is an integrated element of the City of Mercer Island Unified Development Code (Title 19) and other applicable development regulations contained in the Mercer Island City Code, including the storm water management regulations in Title 15, and building and construction regulations in Title 17. The provisions of the Critical Areas Ordinance (19.07.010 through and including 19.07.090 as in effect on January 1, 2011) are hereby incorporated as specific regulations of the Shoreline Master Program. To the extent this section conflicts with any other section of the Mercer Island Municipal Code, the provisions of this Section shall govern within the shorelands.

5. Relationship with other Federal and State Law. The provisions of this Section shall not relieve any responsibility to comply with other Federal and State laws or permits. All work at or waterward of the OHWM may require permits from one or all of the following: U.S. Army
B. General Regulations.

1. Legal Nonconforming Uses and Structures May Continue. Overwater uses and structures, and uses and structures twenty five (25) feet landward from the OHWM, which were legally created may be maintained, repaired, renovated, remodeled and completely replaced to the extent that non-conformance with the standards and regulations of this Section is not increased.

2. No Net Loss Standard and Mitigation Sequencing. No development shall be approved unless the applicant demonstrates to the code official’s satisfaction that the shoreline development will not create a net loss of ecological function in the shorelands.

   a. Standards Presumed to Meet No Net Loss. When all individual development standards that apply to a development project do not explicitly require a determination of no net loss and the project conforms with all such standards, there is a rebuttable presumption that the project does not create a net loss of ecological function to the shorelands.

   b. No Net Loss Plan. Whenever an applicant seeks a variance or conditional use permit or an applicable development standard explicitly requires a determination of no net loss of ecological function, the applicant shall provide the City with a plan that demonstrates the proposed project will not create a net loss in ecological function to the shorelands. The plan shall accomplish no net loss of ecological function by avoiding adverse ecological impacts that are not reasonably necessary to complete the project, minimizing adverse ecological impacts that are reasonably necessary to complete the project, and mitigating or offsetting any adverse impacts to ecological functions or ecosystem-wide processes caused by the project. The Code Official may require the plan to include reports from qualified professionals with expertise in ecological function. The plan’s compliance with the no net loss requirement may be considered through the SEPA process.

      i. Off Site Mitigation Permitted. While on-site mitigation is preferred, off site mitigation may be permitted at the discretion of the code official.

      ii. Demonstration of No Net Loss Supported by a Qualified Professional. The code official may require any applicant to provide reports by qualified professionals that demonstrate to the code official’s satisfaction that the applicant’s proposed plan avoids a net loss in ecological function.

3. Expansion of Legal Nonconforming Structures. Expansions of legal nonconforming over water structures and structures upland twenty five (25) feet from the OHWM are permitted provided that the expanded structure is constructed in compliance with this section and all other standards and provisions of the Mercer Island development regulations.
4. Shoreline Habitat and Natural Enhancements Held Harmless. In those instances where the OHWM moves further landward as a result of any action required by this Section, or in accordance with permits involving a shoreline habitat and nature systems enhancement approved by the city, a state or federal agency, the shoreline setback shall be measured from the location of the OHWM that existed immediately prior to the action or enhancement project.

C. Shoreline Map and Designations. The Shoreline Environmental Designations Map, dated March 3, 2011 as shown in Appendix F is adopted as the Official Mercer Island Shoreline Environmental Designations Map. The digital map is available in the online version of the Mercer Island City Code at http://www.mercergov.org. All shorelands within the City are designated. Different areas of the city’s shorelands have different natural characteristics and development patterns. As a result, two shoreline designated environments are established to regulate developments and uses consistent with the specific conditions of the designated environments and to protect resources of the Mercer Island shorelands. They are:

1. Urban Park Environment. This environment consists of shoreland areas designated for public access and active and passive public recreation. The areas include, but are not limited to, parks, street ends, public utilities and other publicly owned rights-of-way. The uses located in this environment should be water-dependent and designed with no net loss to the ecological functions of the shorelands. Restoration of ecological functions are planned for these areas and are strongly encouraged. The preferred and priority use in the Urban Park Environment is public access to, and enjoyment of, Lake Washington.

2. Urban Residential Environment. The purpose of the Urban Residential Environment is to provide for residential and recreational utilization of the shorelands, compatible with the existing residential character in terms of bulk, scale, type of development and no net loss of ecological functions of the shorelands. The preferred and priority use in the Urban Residential Environment is single family residential use.

D. Use Regulations. The following tables specify the shoreline uses and developments which may take place or be conducted within the designated environments. The uses and developments listed in the matrix are allowed only if they are not in conflict with more restrictive regulations of the Mercer Island development code and are in compliance with the standards specified in subsection E of this section.

**KEY:**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>Permitted via Shoreline Categorically Exempt</td>
</tr>
<tr>
<td>P</td>
<td>Permitted Use</td>
</tr>
<tr>
<td>P-1</td>
<td>Uses permitted when authorized by a conditional use permit for the applicable zone shall also require a Shoreline Substantial Development permit and a shoreline plan in compliance with MICC 19.07.110.B.2</td>
</tr>
<tr>
<td>SCUP</td>
<td>Shoreline Conditional Use Permit</td>
</tr>
<tr>
<td>NP</td>
<td>Not a Permitted Use</td>
</tr>
</tbody>
</table>
The following regulations apply to all uses and development within the shorelands, whether or not that development is exempt from the permit requirements.

**Table A – Shoreland Uses Landward of the Ordinary High Water Mark:**

<table>
<thead>
<tr>
<th>SHORELAND USE LANDWARD OF THE OHWM</th>
<th>Urban Residential Environment</th>
<th>Urban Park Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single Family Dwelling including accessory uses and accessory structures</td>
<td>CE</td>
<td>NP</td>
</tr>
<tr>
<td>Accessory dwelling units</td>
<td>CE</td>
<td>NP</td>
</tr>
<tr>
<td>The use of a single-family dwelling as a bed and breakfast</td>
<td>P-1</td>
<td>NP</td>
</tr>
<tr>
<td>A state-licensed day care or preschool</td>
<td>P-1</td>
<td>NP</td>
</tr>
<tr>
<td>Government services, public facilities, and museums and art exhibitions</td>
<td>P-1</td>
<td>P</td>
</tr>
<tr>
<td>Public parks and open space</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Private recreational areas</td>
<td>P</td>
<td>NP</td>
</tr>
<tr>
<td>Semi-private waterfront recreation areas for use by 10 or fewer families</td>
<td>P</td>
<td>NP</td>
</tr>
<tr>
<td>Semi-private waterfront recreation areas for use by more than 10 families</td>
<td>P-1</td>
<td>NP</td>
</tr>
<tr>
<td>Noncommercial recreational areas</td>
<td>P-1</td>
<td>P</td>
</tr>
<tr>
<td>Commercial recreational areas</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>Places of worship</td>
<td>P-1</td>
<td>NP</td>
</tr>
<tr>
<td>Retirement homes located on property used primarily for a place of worship</td>
<td>P-1</td>
<td>NP</td>
</tr>
<tr>
<td>Special needs group housing</td>
<td>P</td>
<td>NP</td>
</tr>
<tr>
<td>Social service transitional housing</td>
<td>P</td>
<td>NP</td>
</tr>
<tr>
<td>Public schools accredited or approved by the state for compulsory school attendance</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>Private schools accredited or approved by the state for compulsory school attendance</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>Streets and parking</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Transit facilities including light rail transit facilities, transit stops, and associated parking lots</td>
<td>P</td>
<td>NP</td>
</tr>
<tr>
<td>Wireless communications facilities</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>New hard structural shoreline stabilization</td>
<td>SCUP</td>
<td>SCUP</td>
</tr>
<tr>
<td>Soft structural shoreline stabilization</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Shoreland Surface Modification</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Restoration of ecological functions including shoreline habitat and natural systems enhancement</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Agriculture, aquaculture, forest practices and mining</td>
<td>NP</td>
<td>NP</td>
</tr>
</tbody>
</table>
Table B - Shoreland Uses Waterward of the Ordinary High Water Mark:

<table>
<thead>
<tr>
<th>SHORELAND USE WATERWARD OF THE OHWM</th>
<th>Urban Residential Environment</th>
<th>Urban Park Environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moorage facilities and covered moorages 600 square feet or less</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Covered moorage larger than 600 square feet</td>
<td>SCUP</td>
<td>SCUP</td>
</tr>
<tr>
<td>Floating platforms</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Mooring piles, diving boards and diving platforms</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Boat ramp</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Boat houses</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>Floating Homes</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>Public access pier or boardwalk</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Utilities</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Public transportation facilities including roads, bridges, and transit</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Transit facilities including light rail transit facilities</td>
<td>P</td>
<td>NP</td>
</tr>
<tr>
<td>Dredging and dredge material disposal</td>
<td>P</td>
<td>P</td>
</tr>
<tr>
<td>Breakwaters, jetties, and groins (except those for restoration of ecological functions)</td>
<td>NP</td>
<td>NP</td>
</tr>
<tr>
<td>Restoration of ecological functions including shoreline habitat and natural systems enhancement.</td>
<td>P</td>
<td>P</td>
</tr>
</tbody>
</table>

Notes:
A use not listed in this table is not permitted within shorelands.
A use permitted by this table shall meet all other applicable regulations, including, but not limited to, being an allowed use in the applicable zone.
E. Shoreland Development Standards. All development within the shoreline jurisdiction shall be in compliance with all development requirements specified in this section.

1. Standards Landward of the OWHM. The standards in Table C shall apply to development located landward of the OWHM:

<table>
<thead>
<tr>
<th>Table C. Requirements for Development Located Landward from the OHWM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Setbacks for All Structures (Including Fences over 48 Inches High) and Parking</strong></td>
</tr>
<tr>
<td><strong>Height Limits for All Structures</strong></td>
</tr>
<tr>
<td><strong>Maximum Impervious Surface Coverage</strong></td>
</tr>
<tr>
<td><strong>Minimum Land Area Requirements</strong></td>
</tr>
<tr>
<td><strong>Shoreland Surface Modification</strong></td>
</tr>
<tr>
<td><strong>Height Limits for Light Rail Transit Facilities within the Existing I-90 Corridor</strong></td>
</tr>
</tbody>
</table>

*The letters in this column refer to the Plan View(A) and Section(A) diagrams.*
2. Bulkheads and Shoreline Stabilization Structures.

   a. An existing shoreline stabilization structure may be replaced with a similar structure if there is a demonstrated need to protect principal uses or structures from erosion caused by currents or waves, and the following conditions shall apply:
i. The replacement structure should be designed, located, sized, and constructed to assure no net loss of ecological functions.

ii. Replacement walls or bulkheads shall not encroach waterward of the ordinary high water mark or existing structure unless the primary structure was occupied prior to January 1, 1992 and there are overriding safety or environmental concerns. In such cases, the replacement structure shall abut the existing shoreline stabilization structure. Soft shoreline stabilization measures that provide restoration of shoreline ecological functions may be permitted waterward of the ordinary high-water mark.

iii. For purposes of this section standards on shoreline stabilization measures, "replacement" means the construction of a new structure to perform a shoreline stabilization function of an existing structure which can no longer adequately serve its purpose. Additions to or increases in size of existing shoreline stabilization measures shall be considered new structures.

iv. Construction and maintenance of normal protective bulkhead common to single-family dwellings requires only a shoreline exemption permit, unless a report is required by the code official to ensure compliance with the above conditions; however, if the construction of the bulkhead is undertaken wholly or in part on lands covered by water, such construction shall comply with SEPA mitigation.

b. New Structures for Existing Primary Structures: New or enlarged structural shoreline stabilization measures for an existing primary structure, including residences, are not allowed unless there is conclusive evidence, documented by a geotechnical analysis, that the structure is in danger from shoreline erosion caused by currents, or waves. Normal sloughing, erosion of steep bluffs, or shoreline erosion itself, without a scientific or geotechnical analysis, is not demonstration of need. The geotechnical analysis should evaluate on-site drainage issues and address drainage problems away from the shoreline edge before considering structural shoreline stabilization. New or enlarged erosion control structure shall not result in a net loss of shoreline ecological functions.

c. New development should be located and designed to avoid the need for future shoreline stabilization to the extent feasible. This future shoreline stabilization standard does not apply to stabilization that occurs pursuant to subsection (a) of this section. New structural stabilization measures in support of new nonwater-dependent development, including single-family residences, shall only be allowed when all of the conditions below apply:

i. The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.

ii. Nonstructural measures, such as placing the development further from the shoreline, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.
iii. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report, in compliance with MICC 19.07.110.E.2.h. The damage must be caused by natural processes, such as currents, and waves.

iv. The erosion control structure will not result in a net loss of shoreline ecological functions.

d. New development on steep slopes or bluffs shall be set back sufficiently to ensure that shoreline stabilization is unlikely to be necessary during the life of the structure, as demonstrated by a geotechnical analysis, in compliance with MICC 19.07.110.E.2.h and building and construction codes.

e. New structural stabilization measures in support of water-dependent development shall only be allowed when all of the conditions below apply:

i. The erosion is not being caused by upland conditions, such as the loss of vegetation and drainage.

ii. Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

iii. The need to protect primary structures from damage due to erosion is demonstrated through a geotechnical report, in compliance with MICC 19.07.110.E.2.h and building and construction codes.

iv. The erosion control structure will not result in a net loss of shoreline ecological functions.

f. New structural stabilization measures to protect projects for the restoration of ecological functions or hazardous substance remediation projects pursuant to RCW 70.105D shall only be allowed when all of the conditions below apply:

i. Nonstructural measures, planting vegetation, or installing on-site drainage improvements, are not feasible or not sufficient.

ii. The erosion control structure will not result in a net loss of shoreline ecological functions.

g. Bulkheads shall be located generally parallel to the natural shoreline. No filling may be allowed waterward of the ordinary high water mark, unless there has been severe and unusual erosion within two year immediately preceding the application for the bulkhead. In this event the city may allow the placement of the bulkhead to recover the dry land area lost by erosion.

h. Geotechnical reports pursuant to this section that address the need to prevent potential damage to a primary structure shall address the necessity for shoreline stabilization by estimating time frames and rates of erosion and report on the urgency associated with the specific situation.
As a general matter, hard armoring solutions should not be authorized except when a report confirms that there is a significant possibility that such a structure will be damaged within three years as a result of shoreline erosion in the absence of such hard armoring measures, or where waiting until the need is that immediate, would foreclose the opportunity to use measures that avoid impacts on ecological functions. Thus, where the geotechnical report confirms a need to prevent potential damage to a primary structure, but the need is not as immediate as the three years, that report may still be used to justify more immediate authorization to protect against erosion using soft measures.

i. When any structural shoreline stabilization measures are demonstrated to be necessary, pursuant to above provisions, the following shall apply:

   i. Limit the size of stabilization measures to the minimum necessary. Use measures designed to assure no net loss of shoreline ecological functions. Soft approaches shall be used unless demonstrated not to be sufficient to protect primary structures, dwellings, and businesses.

   ii. Ensure that publicly financed or subsidized shoreline erosion control measures do not permanently restrict appropriate public access to the shoreline except where such access is determined to be infeasible because of incompatible uses, safety, security, or harm to ecological functions. See public access provisions; WAC 173-26-221(4). Where feasible, incorporate ecological restoration and public access improvements into the project.

   iii. Mitigate new erosion control measures, including replacement structures, on feeder bluffs or other actions that affect beach sediment-producing areas to avoid and, if that is not possible, to minimize adverse impacts to sediment conveyance systems. Where sediment conveyance systems cross jurisdictional boundaries, local governments should coordinate shoreline management efforts. If beach erosion is threatening existing development, local governments should adopt master program provisions for a beach management district or other institutional mechanism to provide comprehensive mitigation for the adverse impacts of erosion control measures.

   j. The development of 2 or more dwelling units on a lot abutting the OHWM should provide joint use or community dock facilities, when feasible, rather than allow individual docks for each lot.

3. Transportation and Parking.

   a. Shoreline circulation system planning shall include safe, reasonable, and adequate systems for pedestrian, bicycle, and public transportation where appropriate. Circulation planning and projects should support existing and proposed shoreline uses that are consistent with all regulations.

   b. Transportation and parking facilities shall be planned, located, and designed where routes will have the least possible adverse effect on unique or fragile shoreline features, and will not result in a net loss of shoreline ecological functions or adversely impact existing or planned water-dependent uses.
c. Where other options are available and feasible, new roads or road expansions should not be built within shorelands.

d. Parking facilities in shorelands shall be allowed only as necessary to support an authorized use.

4. Standards Waterward of the OHWM. Moorage facilities may be developed and used as an accessory to dwellings on shoreline lots with water frontage meeting or exceeding the minimum lot width requirements specified in Table D. The standards in Table D shall apply to development located waterward of the OHWM:

<table>
<thead>
<tr>
<th>Table D. Requirements for Moorage Facilities and Development Located Waterward from the OHWM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Setbacks for All Moorage Facilities, Covered Moorage, and Floating Platforms</strong></td>
</tr>
<tr>
<td>A* 10 feet from the lateral line (except where moorage facility is built pursuant to the agreement between adjoining owners as shown in Figure B below)</td>
</tr>
<tr>
<td>B Where a property shares a common boundary with the Urban Park Environment, the setback shall be 50 feet from the lateral line or 50% of the water frontage of the property, whichever is less.</td>
</tr>
<tr>
<td><strong>Setbacks for Boat Ramps and Other Facilities for Launching Boats by Auto or Hand, Including Parking and Maneuvering Space</strong></td>
</tr>
<tr>
<td>C 25 feet from any adjacent private property line</td>
</tr>
<tr>
<td><strong>Length or Maximum Distance Waterward from the OHWM for Moorage Facilities, Covered Moorage, Boatlifts and Floating Platforms</strong></td>
</tr>
<tr>
<td>D Maximum 100 feet, but in cases where water depth is less than 11.85 feet below OHWM, length may extend up to 150 feet or to the point where water depth is 11.85 feet at OHWM, whichever is less</td>
</tr>
<tr>
<td><strong>Width of moorage facilities</strong></td>
</tr>
<tr>
<td>E Maximum 5 feet wide within 30 feet waterward from the OHWM and 6 feet wide thereafter, except for boat ramps and lift stations. Moorage facility width shall not include pilings.</td>
</tr>
<tr>
<td><strong>Height Limits for Walls, Handrails and Storage Containers Located on Piers</strong></td>
</tr>
<tr>
<td>F 3.5 feet above the surface of a dock or pier. 4 feet for ramps and gangways designed to span the area 0 feet to 30 feet from the OHWM.</td>
</tr>
<tr>
<td><strong>Height Limits for Mooring Piles, Diving Boards and Diving Platforms</strong></td>
</tr>
<tr>
<td>G 10 feet above the elevation of the OHWM</td>
</tr>
<tr>
<td><strong>Height Limits for Light Rail Transit Facilities within the Existing I-90 Corridor</strong></td>
</tr>
<tr>
<td>The trackway and overhead wires, support poles, and similar features necessary to operate light rail transit facilities may be erected upon and exceed the height of the existing I-90 bridges</td>
</tr>
</tbody>
</table>
*The letters in this column refer to the Plan View (B) and Section(B) diagrams.
Table D (continued) Requirements for Moorage Facilities and Development
Located Waterward from the OHWM

<table>
<thead>
<tr>
<th>Minimum Water Frontage for Moorage Facility</th>
<th>H*</th>
<th>I</th>
<th>J</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Single-family lots: 40 feet</td>
<td>Shared – two adjoining lots: 40 feet combined</td>
<td>Semi-private recreational tracts:</td>
</tr>
<tr>
<td></td>
<td>2 families: 40 feet</td>
<td>3 – 5 families: 40 feet plus 10 feet for each family more than 2</td>
<td>6 – 10 families: 70 feet plus 5 feet for each family more than 5</td>
</tr>
<tr>
<td></td>
<td>11 – 100 families: 95 feet plus 2 feet for each family more than 10</td>
<td>101+ families: 275 feet plus 1 foot for each family more than 100</td>
<td></td>
</tr>
</tbody>
</table>

Covered Moorage

Permitted on single-family residential lots subject to the following:
(a) Maximum height above the OHWM: 16 feet; 16 to 21 feet subject to criteria of MICC 19.07.110.E.5.a
(b) Location/area requirements: See Figure A for single-family lots and Figure B for shared moorage.
(c) Building area: 600 square feet, however a covered moorage may be built larger than 600 square feet within the triangle subject to a shoreline conditional use permit
(d) Covered moorage shall have open sides.
(e) Prohibited in semi-private recreational tracts and noncommercial recreational areas.
(f) Translucent canopies are required.

*The letters in this column refer to the Plan View (C).
5. The covered portion of a moorage shall be restricted to the area lying within a triangle as illustrated in Figure A, except as otherwise provided in MICC 19.07.110.E.5.a. The base of the triangle shall be a line drawn between the points of intersection of the property lateral lines with the ordinary high water mark. The location of the covered moorage shall not extend more than 100 feet from the center of the base line of such triangle. In cases where water depth is less than 11.85 feet from OHWM, the location of the covered moorage may extend up to 150 from the center of the base line or to the point where water depth is 11.85 feet at OHWM, whichever is less. The required 10 foot setbacks from the side property lines shall be deducted from the triangle area.

a. A covered moorage is allowed outside the triangle, or a canopy up to 21 feet in height, if the covered moorage meets all other regulations and:

i. Will not constitute a hazard to the public health, welfare, and safety, or be injurious to affected shoreline properties in the vicinity;

ii. Will constitute a lower impact for abutting property owners; and

iii. Is not in conflict with the general intent and purpose of the SMA, the shoreline master program and the development code.
b. Where a covered moorage or moorage facility is built pursuant to the agreement of adjoining owners of single-family lots, the covered moorage area shall be deemed to include, subject to limitations of such joint agreement, all of the combined areas lying within the triangles extended upon each adjoining property and the inverted triangle situated between the aforesaid triangles, as illustrated in Figure B below.
c. Covered moorage is not allowed within the first 30 feet from the OHWM unless the applicant:
   i. demonstrates to the Code Official’s satisfaction that proposed project will not create a net loss in ecological function of the shorelands; and
   ii. provides the City with documentation of approval of the moorage facilities by both the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife.

6. Moorage Facilities. All permits for new and expanded moorage facility shall meet the following standards unless otherwise exempted. Moorage facilities have the option of meeting either the development standards prescribed in 19.07.110.E.6.a below, 19.07.110.E.6.b below, or the “Alternative Development Standards” in 19.07.110.E.6.c below.

   a. Development Standards for New and Expanded Moorage Facilities. A proposed moorage facility shall be presumed to not create a net loss of ecological functions pursuant to 19.07.110.B.2 if:

      i. the surface coverage area of the moorage facility is:

         (A) 480 square feet or less for a single property owner;
(B) 700 square feet or less for two residential property owners (residential); or

(C) 1,000 square feet or less for three or more residential property owners;

ii. Piers, docks, and platform lifts must be fully grated with materials that allow a minimum of 40% light transmittance;

iii. Vegetation. The code official approves a vegetation plan that conforms to the following:

Vegetation must be planted as provided in Figure C and as follows: Within the 25-foot shoreline setback, a 20-foot vegetation area shall be established, measured landward from the OHWM. 25% of the area shall contain vegetation coverage. The five feet nearest the OHWM shall contain at least 25% native vegetation coverage. A shoreline vegetation plan shall be submitted to the City for approval. The vegetation coverage shall consist of a variety of ground cover shrubs and trees, excluding non-native grasses. No plants on the current King County Noxious Weed lists shall be planted within the shorelands.

iv. Only piers, ramps, and lift stations may be within the first 30 feet from the OHWM. No skirting is allowed on any structure;

v. The height above the OHWM for moorage facilities, except floats shall be a minimum of 1.5 feet and a maximum of 5 feet;
vi. The first in-water (nearest the OWHM) set of pilings shall be steel, 10 inch in diameter or less, and at least 18 feet from the OHWM. Piling sets beyond the first shall also be spaced at least 18 feet apart and shall not be greater than 12 inches in diameter. Piles shall not be treated with pentachlorophenol, creosote, CCA or comparably toxic compounds. If ammoniacal copper zinc arsenate (ACZA) piling are proposed, the applicant shall meet all of the Best Management Practices, including a post-treatment procedure, as outlined in the amended Best Management Practices of the Western Wood Preservers. All piling sizes are in nominal diameter;

vii. Any paint, stain or preservative applied to components of the overwater structure must be leach resistant, completely dried or cured prior to installation. Materials shall not be treated with pentochlorophenol, creosote, CCA or comparably toxic compounds;

viii. No more than two mooring piles shall be installed per structure. Joint-use structures may have up to four mooring piles. The limits include existing mooring piles. Moorage piling shall not be installed within 30 feet of the OHWM. These piles shall be as far offshore as possible;

ix. The applicant shall abide by the work windows for listed species established by the U.S. Army Corp of Engineers and Washington Fish and Wildlife; and

x. Disturbance of bank vegetation shall be limited to the minimum amount necessary to accomplish the project. Disturbed bank vegetation shall be replaced with native, locally adapted herbaceous and/or woody vegetation. Herbaceous plantings shall occur within 48 hours of the completion of construction. Woody vegetation components shall be planted in the fall or early winter, whichever occurs first. The applicant shall take appropriate measures to ensure revegetation success.

b. Development Standards for Replacement, Repair and Maintenance of Overwater Structures, Including Moorage Facilities. The maintenance, repair and complete replacement of legally existing overwater structures is permitted, provided that:

i. All permit requirements of Federal and State agencies are met;

ii. The area, width, or length of the structure is not increased, but may be decreased;

iii. The height of any structure is not increased, but may be decreased; provided that the height above the OHWM may be increased as provided in 19.07.110.E 6.b.v.(B) below;

iv. The location of any structure is not changed unless the applicant demonstrates to the Director’s satisfaction that the proposed change in location results in: 1) a net gain in ecological function, and 2) a higher degree of conformity with the location standards for a new overwater structure;

v. Piles shall not be treated with pentachlorophenol, creosote, CCA or comparably toxic compounds. If ammoniacal copper zinc arsenate (ACZA) piling are proposed, the applicant shall meet all of the Best Management Practices, including a post-treatment procedure, as
outlined in the amended Best Management Practices of the Western Wood Preservers. All piling sizes are in nominal diameter;

vi. Any paint, stain or preservative applied to components of the overwater structure must be leach resistant, completely dried or cured prior to installation. Materials shall not be treated with pentachlorophenol, creosote, CCA or comparably toxic compounds;

vii. The applicant shall abide by the work windows for listed species established by the U.S. Army Corp of Engineers and Washington Fish and Wildlife;

viii. Disturbance of bank vegetation shall be limited to the minimum amount necessary to accomplish the project. Disturbed bank vegetation shall be replaced with native, locally adapted herbaceous and/or woody vegetation. Herbaceous plantings shall occur within 48 hours of the completion of construction. Woody vegetation components shall be planted in the fall or early winter, whichever occurs first. The applicant shall take appropriate measures to ensure revegetation success; and

ix. If more than 50% of the structure’s exterior surface (including decking) or structural elements (including pilings) are replaced or reconstructed during the 5 years immediately prior to any demolition for the replacement or reconstruction, the replaced or reconstructed area of the structure must also comply with the following standards:

   (A) Piers, docks, and platform lifts must be fully grated with materials that allow a minimum of 40% light transmittance;

   (B) The height above the OHWM for moorage facilities, except floats shall be a minimum of 1.5 feet and a maximum of 5 feet; and

   (C) An existing moorage facility that is 5 feet wide or more within 30 feet waterward from the OHWM may be replaced or repaired with a moorage facility that complies with the width of moorage facilities standards specified in MICC 19.07.110(E)(4)(Table D).

c. Alternative Development Standards. The code official shall approve moorage facilities not in compliance with the Development Standards in subsection MICC 19.07.110.E.6.a or 19.07.110.E.6.b subject to both U.S. Army Corps of Engineers and Washington Department of Fish and Wildlife approval to an alternate project design. The following requirements and all other applicable provisions in this chapter shall be met:

   i. The dock must be no larger than authorized through state and federal approval;

   ii. The maximum width must comply with the width of moorage facilities standards specified in MICC 19.07.110(E)(4)(Table D);

   iii. The minimum water depth must be no shallower than authorized through state and federal approval;
iv. The applicant must demonstrate to the Code Official’s satisfaction that the proposed project will not create a net loss in ecological function of the shorelands; and

v. The applicant must provide the City with documentation of approval of the moorage facilities by both the U.S. Army Corps of Engineers and the Washington Department of Fish and Wildlife.

7. Breakwaters, jetties, groins, and weirs. Breakwaters, jetties, groins, weirs, and similar structures are prohibited, except for those structures installed to protect or restore ecological functions, such as woody debris installed in streams. Breakwaters, jetties, groins, and weirs shall be designed to protect critical areas and shall provide for mitigation according to the sequence defined in WAC 173-26-201 (2)(e).

8. Dredging.

a. Dredging shall be permitted only if navigational access has been unduly restricted or other extraordinary conditions in conjunction with water-dependent use; provided, that the use meets all state and federal regulations.

b. Dredging shall be the minimum necessary to accommodate the proposed use.

c. Dredging shall utilize techniques that cause the least possible environmental and aesthetic impact.

d. Dredging is prohibited in the following locations:

i. Fish spawning areas except when the applicant conclusively demonstrated that fish habitat will be significantly improved as a result of the project.

ii. In unique environments such as lake logging of the underwater forest.

e. Dredging and the disposal of dredged material shall comply with Ecology Water Quality Certification process and U.S. Army Corps of Engineers permit requirements. The location and manner of the disposal shall be approved by the city.

9. General Requirements. The following requirements apply to the following types of activities that may be waterward and/or landward of the OHWM:


b. Utilities
i. Utilities shall be placed underground and in common rights-of-way wherever economically and technically practical.

ii. Shoreline public access shall be encouraged on publicly owned utility rights-of-way, when such access will not unduly interfere with utility operations or endanger public health and safety. Utility easements on private property will not be used for public access, unless otherwise provided for in such easement.

iii. Restoration of the site is required upon completion of utility installation.

c. Archaeological and Historic Resources

i. If archaeological resources are uncovered during excavation, the developer and property owner shall immediately stop work and notify the City, the Office of Archaeology and Historic Preservation, and affected Indian tribes.

ii. In areas documented to contain archaeological resources by the Office of Archaeology and Historic Preservation, a site inspection or evaluation is required by a professional archaeologist in coordination with affected Indian tribes.

d. New development adding over 500 square feet of additional gross floor area or impervious surface, including the primary structures and appurtenances, shall be required to provide native vegetation coverage over 50% of the 20-foot vegetation area shown on Figure C. This standard shall apply to the total of all new impervious surface area added in the 5 years immediately prior to the construction of the gross floor area or impervious surface addition.

i. New development over 1000 square feet of additional gross floor area or impervious surface, including the primary structures and appurtenances, shall be required to provide native vegetation coverage over 75% of the 20-foot vegetation area shown in Figure C.

ii. A shoreline vegetation plan shall be submitted to the City for approval.

iii. The vegetation coverage shall consist of a variety of ground cover shrubs and trees indigenous to the Central Puget Sound lowland ecoregion and suitable to the specific site conditions. Existing mature trees and shrubs, but excluding noxious weeds, may be included in the coverage requirement if located in the 20-foot vegetation area shown in Figure C.

iv. No plants on the current King County Noxious Weed lists shall be planted within the shorelands.
Section 3. Amendments to Chapter 19.16 MICC, Definitions. MICC 19.16.010
“Definitions” is hereby amended as follows:

19.16.010 Definitions.
Words used in the singular include the plural and the plural the singular.

Definitions prefaced with (SMP) are applicable only to the Shoreline Master Program, Chapter MICC 19.07.110
…

B
…
Boatlift: A structure or device used to raise a watercraft above the waterline for secure moorage purposes.
…

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

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

F
…

Feasible (SMP): An action, such as a development project, mitigation, or preservation requirement, meets all of the following conditions: (a) The action can be accomplished with technologies and methods that have been used in the past in similar circumstances, or studies or tests have demonstrated in similar circumstances that such approaches are currently available and likely to achieve the intended results; (b) The action provides a reasonable likelihood of achieving its intended purpose; and (c) The action does not physically preclude achieving the project’s primary intended legal use. In cases where these guidelines require certain actions unless they are infeasible, the burden of proving infeasibility is on the applicant. In determining an action’s infeasibility, the reviewing agency may weigh the action’s relative public costs and public benefits, considered in the short- and long-term time frames.
…

Fill: The placement of earth material by artificial means.
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Fill (SMP): The addition of soil, sand, rock, gravel, sediment, earth retaining structure, or other material to an area waterward of the OHWM, in wetlands, or on shorelands in a manner that raises the elevation or creates dry land.

Finger Pier: An extension from a dock used to create moorage slips.

Floating Home: A single-family dwelling unit constructed on a float, which is moored, anchored or otherwise secured in waters.

G

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

H

Hard Structural Shoreline Stabilization: Shore erosion control practices using hardened structures that armor and stabilize the shoreline from further erosion. Hard structural shoreline stabilization typically uses concrete, boulders, dimensional lumber or other materials to construct linear, vertical or near-vertical faces that are located at or waterward of ordinary high water, as well those structures located on average within five (5) feet landward of OHWM. These include bulkheads, rip-rap, groins, retaining walls and similar structures.

L

Lift Station (Boat Hoist): A structure or device normally attached to a dock or pier used to raise a watercraft above the waterline for secure moorage purposes.

Light Rail Facilities: A public rail transit line, including all ancillary facilities such as transit power substations, that operates at grade level, above grade level, on a bridge or in a tunnel and that provides high capacity, regional transit service owned or operated by a regional transit
authority authorized under Chapter 81.112 RCW. A regional light rail transit system will be designed to cross I-90 right-of-way.

M

Marina: A commercial basin providing rental or sale of docks, watercraft, moorage, and/or supplies. Casual single-family renting of moorage is excluded from this definition.

N

Native vegetation: Vegetation identified by the Washington Native Plant Society or the United States Department of Agriculture as being native to Washington State. Vegetation comprised of plant species which are indigenous to the Puget Sound region and which reasonably could have been expected to naturally occur on the site. Native vegetation does not include noxious weeds.

O

Ordinary High Water Mark (OHWM): The point on the shore that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in all ordinary years, as to mark upon the soil a character distinct from that of the abutting upland, in respect to vegetation as that condition exists on June 1, 1971, as it may naturally change thereafter in accordance with permits issued by a local government or the department of ecology; provided, that in any area where the OHWM cannot be found, the OHWM adjoining fresh water shall be the line of mean high water, or as amended by the State. To determine OHWM for a shoreline armoring project, a site-specific determination by a qualified professional is required. For determination of OHWM for measuring building setbacks, the OHWM corresponds with a lake elevation of 28.67 feet above sea level, based on the National Geodetic Vertical Datum of 1929 (NGVD 29). Alternatively, the identical OHWM corresponds with a lake elevation of 25.10 feet above sea level, when based on North American Vertical Datum of 1988 (NAVD 88).

R

Restoration of ecological functions (SMP): The reestablishment or upgrading of impaired ecological shoreline processes or functions. This may be accomplished through measures including but not limited to re-vegetation, removal of intrusive shoreline structures and removal or treatment of toxic materials. Restoration does not imply a requirement for returning the shoreline area to aboriginal or pre-European settlement conditions.
Shorelands: Lake Washington, its underlying land, associated wetlands, and those lands extending landward 200 feet from its Ordinary High Water Mark (OHWM). Those areas extending landward for 200 feet in all directions, as measured on a horizontal plane from the ordinary high water mark, floodways and contiguous floodplain areas landward 200 feet from such floodplains and all wetlands and river deltas associated with the streams, lakes and tidal waters subject to the Shoreline Management Act (Chapter 90.58 RCW).

Shoreline areas and shoreline jurisdiction: All "shorelines of the state" and "shorelands" as defined in RCW 90.58.030.

Shoreline Master Program: The comprehensive use plan for a described area, the use regulations together with maps, diagrams, charts, or other descriptive material and text, a statement of desired goals, and standards developed in accordance with the policies enunciated in RCW 90.58.020 and the applicable guidelines. As provided in RCW 36.70A.480, the goals and policies of a shoreline master program for a county or city approved under chapter 90.58 RCW shall be considered an element of the county or city's comprehensive plan. All other portions of the shoreline master program for a county or city adopted under chapter 90.58 RCW, including use regulations, shall be considered a part of the county or city's development regulations.

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

Wetlands: Areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal conditions do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands do not include artificial wetlands, such as irrigation and drainage ditches, grass-lined swales, canals, landscape amenities, and detention facilities or those wetlands, created after July 1, 1990, that were unintentionally created as a result of the construction of a road or street unless the artificial wetlands were created to mitigate the alteration of a naturally occurring wetland. For identifying and delineating a regulated wetland, the city will use the Wetland Manual.

Wetland Manual: The Washington State Wetland Identification and Delineation Manual Identification and lineation of their boundaries shall be done in accordance with the most currently approved Army Corps of Engineers wetlands delineation manual and applicable regional supplements.
Section 4. **Repeal and Replace Appendix F of Title 19 MICC, Shoreline Designated Environments.** Appendix F of Title 19 MICC, the map identifying Shoreline Designated Environments, is hereby repealed and replaced with the attachment hereto labeled as Attachment A.

Section 5. **Amendments to Chapter 19.15.010 MICC, General Procedures.** MICC 19.15.010 “General Procedures” is hereby amended as follows:

19.15.010 General procedures.

...  
E. Summary of Actions and Authorities. The following is a nonexclusive list of the actions that the city may take under the development code, the criteria upon which those decisions are to be based, and which boards, commissions, elected officials, or city staff have authority to make the decisions and to hear appeals of those decisions.

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**¹** Final rulings granting or denying an exemption under MICC 19.07.110(19.15.020(G)(6) are not appealable to the shoreline hearings board (SHB No. 98-60).

**²** The original action is by the planning commission which holds a public hearing and makes recommendations to the city council which holds a public meeting and makes the final decision.

³ Must be approved by the City of Mercer Island prior to review by DOE per WAC 173-27-200 and RCW 90.58.140(10).

### Section 6. Amendments to Chapter 19.15.020 MICC, Permit Review Procedures.
MICC 19.15.020 “Permit Review Procedures” is hereby amended as follows:

**19.15.020 Permit review procedures.**

…

G. Decision Criteria. Decisions shall be based on the criteria specified in the Mercer Island City Code for the specific action. A reference to the code sections that set out the criteria and standards for decisions appears in MICC 19.15.010(E). For those actions that do not otherwise have criteria specified in other sections of the code, the following are the required criteria for decision.

…

5. Deviation.

   a. No use deviation shall be allowed;

   b. The granting of the deviation will not be materially detrimental to the public welfare or injurious to the property or improvements in the vicinity and zone in which the property is situated;

   c. The granting of the deviation will not alter the character of the neighborhood, nor impair the appropriate use or development of adjacent property; and

   d. The deviation is consistent with the policies and provisions of the comprehensive plan and the development code.


   a. Administrative Responsibility. Except as otherwise stated in this section, the code official is responsible for:

      i. Administering shoreline permits.
ii. Approving, approving with conditions or denying shoreline exemption permits, substantial development permits, shoreline conditional use permits, shoreline variances and permit revisions in accordance with applicable provisions.

iii. Determining compliance with the State Environmental Policy Act.

iv. No development shall be undertaken within the shorelands without first obtaining a Shoreline Exemption Permit, Substantial Development Permit, Conditional Use Permit, and/or a Variance Permit in accordance with all applicable procedures unless it qualifies under a Categorical Exemption. In addition, such permit shall be in compliance with permit requirements of all other agencies having jurisdiction within the shorelands. Compliance with all applicable federal and state regulations is also required.

b. Shoreline Categorical Exemption Decision Criteria and Process. Any development that qualifies as being a Shoreline Categorical Exemption, as specified in MICC 19.07.110, shall not require a shoreline permit, but must still meet all requirements of the Mercer Island Unified Land Development Code.


i. Shoreline Exemption Permit Application Criteria. A shoreline exemption permit may be granted to the following development as long as such development is in compliance with all applicable requirements of the Mercer Island Unified Land Development Code and any of the following:

(A) Any development of which the total cost or fair market value, whichever is higher, does not exceed $6,416 or as periodically revised by the Washington State Office of Financial Management, if such development does not materially interfere with the normal public use of the water or shorelines of the state; or

(B) Normal maintenance or repair of existing structures or developments, including damage by accident, fire or elements. “Normal maintenance” includes those usual acts established to prevent a decline, lapse, or cessation from a lawfully established condition. “Normal repair” means to restore a development to a state comparable to its original condition within a reasonable period after decay or partial destruction, including complete replacement of legally existing structures. Normal maintenance of single-family dwellings is categorically exempt as stated above; or

(C) Construction of the normal protective bulkhead common to single-family dwellings. A “normal protective” bulkhead is constructed at or near the ordinary high water mark to protect a single-family dwelling and is for protecting land from erosion, not for the purpose of creating land. Where an existing bulkhead is being replaced, it shall be constructed no further waterward of the existing bulkhead than is necessary for construction of new footings; or

(D) Emergency construction necessary to protect property from damage by the elements. An “emergency” is an unanticipated and imminent threat to public health, safety, or
the environment which requires immediate action within a time too short to allow full compliance with this section; or

(E) Construction or modification of navigational aids such as channel markers and anchor buoys; or

(F) Construction of a dock, designed for pleasure craft only, for the private noncommercial use of the owners, lessee, or contract purchaser of a single-family dwelling, for which the cost or fair market value, whichever is higher, does not exceed $10,000; or

(G) Any project with a certification from the governor pursuant to Chapter 80.50 RCW; or

(H) Projects for the Restoration of Ecological Functions.

 ii. Shoreline Exemption Permit Application Process. The city shall issue or deny the Shoreline Exemption Permit within 10 calendar days of receiving a complete application, or 10 days after issuance of a DNS, MDNS or EIS if SEPA review is required. The city shall send the shoreline permit decisions to the applicant and all applicable local, state, or federal agencies as required by state or federal law.

d. Substantial Development Permit Application Decision Criteria and Process. A substantial development permit (SDP) is required for any development within shorelands not qualifying as being subject to a categorical exemption or shoreline exemption permit. Requirements and procedures for securing a substantial development permit are established below.

 i. SDP Application Decision Criteria. All requirements of the Mercer Island Unified Land Development Code shall apply to the approval of a Shoreline Development Permit.

 ii. SDP Application Process. The applicant shall attend a preapplication meeting prior to submittal of a substantial development permit. Upon completion of the preapplication meeting, a complete application, filing fees and SEPA checklist, if applicable, shall be filed with the city on approved forms to ensure compliance with development codes and standards.

 (A) Once a complete application has been submitted, public notice of an application for a substantial development permit shall be made in accordance with the procedures set forth in the Mercer Island Uniform Land Development Code for Administrative Actions; provided, such notice shall be given at least 30 days before the date of final action by the city. The notices shall include a statement that any person desiring to submit written comments concerning an application, or desiring to receive notification of the final decision concerning an application as expeditiously as possible after the issuance of the decision, may submit the comments or request a copy of the decision(s) to the city within thirty days from the last date the notice is published. If a hearing is to be held on an application, notices of such hearing shall include a statement that any person may submit oral or written comments on an application at the hearing.
(B) Within 30 days of the final publication, posting or mailing of the notice, whichever comes last, any interested person may submit written comments on the proposed application. The city will not make a decision on the permit until after the end of the comment period. An open record hearing before the code official, as set out in MICC 19.15.020(F), shall be conducted on the Shoreline Substantial Development Permits when the following factors exist:

(1) The proposed development has broad public significance; or

(2) Within the 30-day comment period, 10 or more interested citizens file a written request for a public hearing; or

(3) At the discretion of the code official.

(C) The technical review of shoreline Substantial Development Permits must ensure that the proposal complies with the criteria of the Shoreline Management Act policies and all requirements of the city of Mercer Island Unified Land Development Code.

(D) The city’s action in approving, approving with conditions, or denying any substantial development permit or shoreline exemption is final unless an appeal is filed in accordance with applicable laws. The city shall send the shoreline permit decisions to the applicant, the Department of Ecology, the Washington State Attorney General and to all other applicable local, state, or federal agencies.

(E) The applicant shall not begin construction until after 21-days from the date of receipt by the Department of Ecology and Attorney General and/or any appeals are concluded. The applicant shall also comply with all applicable federal, state and city standards for construction.

e. Shoreline Conditional Use Permit Application Decision Criteria and Process. The purpose of a shoreline conditional use permit is to provide a system which allows flexibility in the application of use regulations in a manner consistent with the policies of RCW 90.58.020. In authorizing a shoreline conditional use, special conditions may be attached to the permit by the City of Mercer Island or the Department of Ecology to prevent undesirable effects of the proposed use and/or to assure consistency of the project with the Shoreline Management Act and the applicable city regulations.

i. Shoreline Conditional Use Permit Application Decision Criteria. All requirements of the Mercer Island Unified Land Development Code shall apply to the approval of a Shoreline Conditional Use Permit. Uses that require a shoreline conditional use permit may be authorized provided that the applicant demonstrates all of the following:

(A) That the proposed use is consistent with the policies of RCW 90.58.020 and the Mercer Island Uniform Land Development Code;
(B) That the proposed use will not detrimentally interfere with the normal public use of shorelands within the “Urban Park Environment” shoreline environment designation;

(C) That the proposed use of the site and design of the project is compatible with other authorized uses within the area and with uses allowed for the area by the Mercer Island Uniform Land Development Code;

(D) That the proposed use will cause no significant adverse effects to the shoreline environment in which it is to be located; and

(E) That the public interest suffers no substantial detrimental effect.

(F) In applying the above criteria when reviewing shoreline conditional use applications, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example, if shoreline conditional use permits were granted for other developments in the area where similar circumstances exist, the total of the shoreline conditional uses shall also remain consistent with the policies of RCW 90.58.020 and shall not produce substantial adverse effects to the shoreline environment.

ii. Shoreline Conditional Use Permit Application Process. The applicant shall attend a preapplication meeting prior to submittal of a Shoreline Conditional Use Permit. Upon completion of the preapplication meeting, a complete application, filing fees and SEPA checklist, if applicable, shall be filed with the city on approved forms to ensure compliance with development codes and standards.

(A) Once a complete application has been submitted, public notice of an application for a Shoreline Conditional Use Permit shall be made in accordance with the procedures set forth in the Mercer Island Uniform Land Development Code for Discretionary Actions; provided, such notice shall be given at least 30 days before the date of decision by the city.

The notices shall include a statement that any person desiring to submit written comments concerning the application, receive notice of and participate in any hearings, or desiring to receive notification of the final decision concerning the application as expeditiously as possible after the issuance of the decision, may submit the comments or request a copy of the decision(s) to the city within thirty days of the last date the notice is published, and any appeal rights.

If a hearing is to be held on an application, notices of such a hearing shall include a statement that any person may submit oral or written comments on an application at the hearing.

(B) Within 30 days of the final publication, posting or mailing of the notice, whichever comes last, any interested person may submit written comments on the proposed application. The city will not make a decision on the permit until after the end of the comment period.
(C) The technical review of Shoreline Conditional Use Permit must ensure that the proposal complies with the criteria of the Shoreline Management Act policies and all requirements of the city of Mercer Island Unified Land Development Code. An open record hearing before the code official, as set out in MICC 19.15.020(F), shall be conducted on the Shoreline Conditional Use Permits when the following factors exist:

1. The proposed development has broad public significance; or
2. Within the 30-day comment period, 10 or more interested citizens file a written request for a public hearing; or
3. At the discretion of the code official.

(D) The final decision in approving, approving with conditions, or denying a Shoreline Conditional Use Permit is rendered by the Department of Ecology in accordance with WAC 173-27-200, and all other applicable local, state, or federal laws. The city shall send the shoreline permit decision to the applicant, the Department of Ecology, the Washington State Attorney General and to all other applicable local, state, or federal agencies.

(E) The applicant shall not begin construction until after 21-days from the date of receipt by the Department of Ecology and Attorney General and/or any appeals are concluded. The applicant shall also comply with all applicable federal, state and city standards for construction.


i. Shoreline Variance Criteria. Shoreline Variances are strictly limited to granting relief from specific bulk, dimensional or performance standards set forth in the applicable regulations where there are extraordinary circumstances relating to the physical character or configuration of property such that the strict implementation of the regulations will impose unnecessary hardships on the applicant or thwarting of the policy enumerated in RCW 90.58.020. Shoreline variances for use regulations are prohibited. In addition, in all instances the applicant for a shoreline variance shall demonstrate strict compliance with all variance criteria set out in MICC 19.15.020(G)(4) and the following additional criteria:

(A) In the granting of all shoreline variance permits, consideration shall be given to the cumulative impact of additional requests for like actions in the area. For example if shoreline variances were granted to other developments in the area where similar circumstances exist the total of the shoreline variances shall also remain consistent with the policies of RCW 90.58.020 and shall not produce substantial adverse effects to the shoreline environment.

(B) Shoreline variance permits for development that will be located landward of the ordinary high water mark, and/or landward of any associated wetland, may be authorized; provided, the applicant can demonstrate all of the following:
(1) That the strict application of the bulk, dimensional or performance standards set forth in the applicable regulations precludes or significantly interferes with reasonable use of the property not otherwise prohibited;

(2) That the hardship in subsection 19.15.020.G.6.f.i of this section is specifically related to the property, and is the result of unique conditions such as irregular lot shape, size, or natural features and the application of the applicable regulations, and not, for example, from deed restrictions or the applicant’s own actions;

(3) That the design of the project is compatible with other authorized uses in the area and will not cause adverse effects to adjacent properties or the shoreline environment;

(4) That the requested shoreline variance does not constitute a grant of special privilege not enjoyed by the other properties in the area, and is the minimum necessary to afford relief; and

(5) That the public interest will suffer no substantial detrimental effect.

(C) Shoreline variance permits for development that will be located waterward of the ordinary high water mark, or within any associated wetland may be authorized; provided, the applicant can demonstrate all of the following:

(1) That the strict application of the bulk, dimensional or performance standards set forth in the applicable regulations precludes reasonable use of the property;

(2) That the proposal is consistent with the criteria established under subsections 19.15.020.G.6.f.i(B)(1) through (5) of this section; and

(3) That the public rights of navigation and use of the shorelines will not be adversely affected.

ii. Shoreline Variance Permit Application Process. The applicant shall attend a preapplication meeting prior to submittal of a Shoreline Variance. Upon completion of the preapplication meeting, a complete application, filing fees and SEPA checklist, if applicable, shall be filed with the city on approved forms to ensure compliance with development codes and standards.

(A) Once a complete application has been submitted, public notice of an application for a Shoreline Variance shall be made in accordance with the procedures set forth in the Mercer Island Uniform Land Development Code for Discretionary Actions; provided, such notice shall be given at least 30 days before the date of decision by the city.

The notices shall include a statement that any person desiring to submit written comments concerning the application, receive notice of and participate in any hearings, or desiring to receive notification of the final decision concerning the application as expeditiously as possible after the issuance of the decision, may submit the comments or request
a copy of the decision(s) to the city within thirty days the last date the notice is published, and any appeal rights.

If a hearing is to be held on an application, notices of such a hearing shall include a statement that any person may submit oral or written comments on an application at the hearing.

(B) Within 30 days of the final publication, posting or mailing of the notice, whichever comes last, any interested person may submit written comments on the proposed application. The city will not make a decision on the permit until after the end of the comment period.

(C) The technical review of Shoreline Variance Permit must ensure that the proposal complies with the criteria of the Shoreline Management Act policies and all requirements of the city of Mercer Island Unified Land Development Code. An open record hearing before the code official, as set out in MICC 19.15.020(F), shall be conducted on the Shoreline Variance Permits when the following factors exist:

(1) The proposed development has broad public significance; or

(2) Within the 30-day comment period, 10 or more interested citizens file a written request for a public hearing; or

(3) At the discretion of the code official.

(D) The final decision in approving, approving with conditions, or denying a Shoreline Conditional Use Permit is rendered by the Department of Ecology in accordance with WAC 173-27-200, and all other applicable local, state, or federal agencies. The city shall send the shoreline permit decision to the applicant, the Department of Ecology, the Washington State Attorney General and to all other applicable local, state, or federal agencies.

(E) The applicant shall not begin construction until after 21-days from the date of receipt by the Department of Ecology and Attorney General and/or any appeals are concluded. The applicant shall also comply with all applicable federal, state and city standards for construction.

iii. The reasonable use exemption provided in MICC 19.07.030 (b) does not apply in the shorelands. The provision of reasonable use in the shorelands shall be accomplished through a shoreline variance.

g. Time Limits of Permits. The following time limits shall apply to all shoreline exemption, substantial development, shoreline conditional use permits and shoreline variance permits:

i. Construction or substantial progress toward construction of a development for which a permit has been granted must be undertaken within two years of the effective date of a
shoreline permit. Where no construction activities are involved, the use or activity shall be commenced within two years of the effective date of a substantial development permit. The effective date of a shoreline permit shall be the date of the last action required on the shoreline permit and all other government permits and approvals that authorize the development to proceed, including all administrative and legal actions on any such permit or approval.

ii. A single extension before the end of the time limit, with prior notice to parties of record, for up to one year, based on reasonable factors may be granted, if a request for extension has been filed before the expiration date and notice of the proposed extension is given to parties of record and to the Department of Ecology.

h. Appeals. Appeals to any shoreline permit decision, except shoreline exemption permits, shall be in accordance with RCW 90.58.180. Appeals to shoreline exemptions permits shall be filed in accordance with MICC 19.15.020.J.

i. Suspension of Permits. The city may suspend any shoreline exemption permit, substantial development permit, shoreline conditional use permit, or shoreline variance permit when the permittee has not complied with the conditions of the permit. Such noncompliance may be considered a public nuisance. The enforcement shall be in conformance with the procedures set forth in MICC 19.15.030, Enforcement.

j. Revisions. When an applicant seeks to revise a substantial development permit, shoreline conditional use permit and/or shoreline variance permit the requirement of WAC 173-27-100, as amended, shall be met.

Section 7. Repeal and Replace the Mercer Island Comprehensive Plan Shoreline Goals and Policies. The Shoreline Goals and Policies of the Mercer Island Comprehensive Plan as adopted under ordinance No. 05C-05 is repealed and replaced with the attachment hereto labeled as Attachment B.

Section 8. Adopt the Shoreline Restoration Plan. The Shoreline Restoration Plan for the City of Mercer Island Shoreline Master Program is adopted with the attachment hereto labeled as Attachment C.

Section 9. Severability. If any section, sentence, clause or phrase of this ordinance or any municipal code section amended hereby should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity of any other section, sentence, clause or phrase of this ordinance or the amended code section.

Section 10. Ratification. Any act consistent with the authority and prior to the effective date of this ordinance is hereby ratified and affirmed.

Section 11. Effective Date. This ordinance shall be published in the official newspaper of the City, and shall be transmitted to the Washington State Department of
Ecology for review and approval. This ordinance shall become effective on the date that the Department of Ecology issues formal approval of the ordinance.

PASSED by the City Council of the City of Mercer Island, Washington at its regular meeting on the 2nd day of December 2013 and signed in authentication of its passage.

CITY OF MERCER ISLAND

Bruce Bassett, Mayor

ATTEST:

Allison Spietz, City Clerk

Approved as to Form:

Katie Knight, City Attorney

Date of Publication: 12/11/2013
ATTACHMENT A
TO
ORDINANCE NO. 13C-12
Appendix F - Proposed Shoreline Environment Designations

Shoreline Master Program - City of Mercer Island

Landward extent of Shoreline Management Area is measured 200 ft landward of the Ordinary High Water Mark.

Waterward extent of Shoreline Management Area is measured from the Ordinary High Watermark to the middle of Lake Washington.

Waterward extent of City jurisdiction is measured to the middle of Lake Washington, pursuant to RCW 35.21.160.

Produced by the City of Mercer Island. March 3, 2011.
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ATTACHMENT B
TO
ORDINANCE NO. 13C-12
INTRODUCTION

The purpose of this document is four-fold:

1. To fulfill the requirements of the Shoreline Management Act (SMA) of 1971, Chapter 286, Laws of 1971, Chapter 90.58. RCW and Chapter 173- 26 WAC by developing a Master Program to guide the future use and development of Mercer Island’s shoreline.

2. To recognize the Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan.

3. To provide guidelines for revising local ordinances and zoning codes.

4. To provide a basis for evaluating applications for shoreline permits on Mercer Island.

The State of Washington Shoreline Management Act of 1971 recognizes that the shorelines of the state are among our most valuable and fragile natural resources and directs all local governments to develop a Master Program for the management of these shorelines. The Law specifies that all lakes over 1,000 acres in surface area are Shorelines of Statewide Significance. Lake Washington is such a shoreline and in our planning we must, as the Shoreline Management Act specifies, provide for uses in the following order of preference: those which

1. Recognize and protect the state-wide interest over local interest;
2. Preserve the natural character of the shoreline;
3. Result in long term over short term benefit;
4. Protect the resources and ecology of the shoreline;
5. Increase public access to publicly owned areas of the shoreline;
6. Increase recreational opportunities for the public in the shoreline;
7. Provide for any other element deemed appropriate or necessary.

PROLOGUE

Mercer Island was originally utilized as a source of timber, and although proposed as a “regional park” in its entirety at one time, it became a recreational and, later, a prime residential area. Until 1940, boat and ferry travel was the primary means of reaching the Island from Seattle. In 1940 the Lake Washington floating bridge was completed. At this time the population of the Island and, subsequently, the complexion of development changed rapidly. Developers took advantage of the relatively easy access and relatively close proximity to Seattle’s employment centers, and land quickly changed from forest to subdivision.

Planning during this time and up until the early 1960’s was conducted by King County. Since accepting the County zoning upon incorporation of the City in 1960, few changes affecting shoreline uses have occurred, with single-family residential and recreation constituting the primary shoreline uses.
The City developed its first Shoreline Master Program in 1974. Key considerations within this plan included conservation, public access to the shoreline, residential development, and the guidance for recreational uses along the Mercer Island shoreline. These initial policy objectives are reflected in today’s protection of the City’s shoreline, which includes approximately 6,000 lineal feet of publicly owned shoreline, developed as waterfront recreation areas. Included in these publicly owned lands are nineteen street ends; Groveland Beach Park; Clarke Beach Park; and Luther Burbank Park, which was transferred in 2003 from King County to the City of Mercer Island via an Intergovernmental Land Transfer Agreement.

During the 35 years since the City adopted its first SMP, the Mercer Island has matured to the point where it is largely developed with the priority uses planned for in the first SMP. For example, an inventory of the shoreline prepared as part of this SMP update identified only 30 shoreline properties that are currently undeveloped.

Since 1990, when the state enacted the Growth Management Act, state policy has promoted greater density in urban areas, such as the City of Mercer Island and the other cities that surround Lake Washington. In addition, the increased land values on the Island have created pressures for more intense use of lands during redevelopment.

The City’s and region’s development during this time has impacted the shoreline. Docks and bulkheads, impervious surfaces in shoreline area and in adjacent areas have impacted the shoreline environment, including salmonid habitat. In 1999, Chinook salmon and bull trout were listed as “Threatened” under the Federal Endangered Species Act. New scientific data and research has improved our understanding of shoreline ecological functions and their value in terms of fish and wildlife, water quality, and human health. Scientific information, however, remains incomplete and sometimes inconsistent in some areas important to Mercer Island’s development pattern.

**INTENT**

To address changes in the shoreline environment, comply with the mandates of the Shoreline Management Act, and enable the City to plan for emerging issues, the City has initiated an extensive update of its Shoreline Master Program. The new program is intended to respond to current conditions and the community’s vision for the future.

The largely built out character of the shoreline, as well as the increasing protections under state and federal law for shoreline habitat are two factors that have strongly influenced the Update’s direction. In updating the program, the City’s primary objectives are to:

- Enable current and future generations to enjoy an attractive, healthy and safe waterfront.
- Protect the quality of water and shoreline natural resources to preserve fish and wildlife and their habitats.
• Protect the City’s investments, as well as those of property owners along and near the shoreline.

• Produce an updated Shoreline Master Program (SMP) that is supported by Mercer Island’s elected and appointed officials, citizens, property owners, the State of Washington, and other key groups with an interest in the shoreline.

• Fairly allocate the responsibilities for increased shoreline protection among new development and redevelopment.

• Assure that regulatory or administrative actions do not unconstitutionally infringe upon private property rights.

The City of Mercer Island, through adoption of the Shoreline Master Program, intends to implement the Washington State Shoreline Management Act (RCW 90.58) and its policies, including protecting the State’s shorelines and their associated natural resources, planning for and fostering all reasonable and appropriate uses, and providing opportunities for the general public to have access to and enjoy shorelines.

The City of Mercer Island’s Shoreline Master Program represents the City’s participation in a coordinated planning effort to protect the public interest associated with the shorelines of the State while, at the same time, recognizing and protecting private property rights consistent with the public interest. The Program preserves the public’s opportunity to enjoy the physical and aesthetic qualities of shorelines of the State and protects the functions of shorelines so that, at a minimum, the City achieves a ‘no net loss’ of ecological functions, as evaluated under the Final Shoreline Analysis Report issued in July 2009. The Program also promotes restoration of ecological functions where such functions are found to have been impaired, enabling functions to improve over time.

The goals and policies of the SMA constitute one of the goals for growth management as set forth in RCW 36.70A.020 and, as a result, the goals and policies of this SMP serve as an element of Mercer Island’s Comprehensive Plan and should be consistent with other elements of the Comprehensive Plan. In addition, other portions of the SMP adopted under chapter 90.58 RCW, including use regulations, are considered a part of the city's development regulations.

**I. DESIGNATED ENVIRONMENTS**

WAC 173-26-211 states, “Master programs shall contain a system to classify shoreline areas into specific environment designations. This classification system shall be based on the existing use pattern, the biological and physical character of the shoreline, and the goals and aspirations of the community as expressed through comprehensive plans as well as the criteria in this section. Each master program's classification system shall be consistent with that described in WAC 173-26-211 (4) and (5) unless the alternative proposed provides equal or better implementation of the act.”
WAC 173-26-211(4)(c) allows for local governments to establish a designation system, provided it is consistent with the purposes and policies of WAC 173-26-211 and WAC 173-26-211(5).

Mercer Island contains two distinct shoreline designations, pursuant to WAC 173-26-211(4)(c): urban residential, and urban park.

This system is designed to encourage uses in each environment which enhance the character of that environment. The basic intent of this system is to utilize performance standards which regulate use activities in accordance with goals and objectives defined locally. Thus, the particular uses or type of developments placed in each environment should be designed and located so that there are no effects detrimental to achieving the objectives of the environment designations and local development criteria. This approach provides an ‘umbrella’ environment class over local planning and zoning on the shorelines. Since every area is endowed with different resources, has different intensity of development and attaches different social values to these physical and economic characteristics, the enforcement designations should not be regarded as a substitute for local planning and land-use regulations.”

1. **Urban Residential**
   The purpose of the urban residential environment is to accommodate residential development and appurtenant structures that are consistent with this chapter. An additional purpose is to provide appropriate public access and recreational uses.

   **Designation Criteria:** Areas that are predominantly single-family or multifamily residential development or are planned and platted for residential development.

   **Management Policies:**

   1. Standards for density or minimum frontage width, setbacks, lot coverage limitations, buffers, shoreline stabilization, vegetation conservation, critical area protection, and water quality should be set to assure no net loss of shoreline ecological functions, taking into account the environmental limitations and sensitivity of the shoreline area, the level of infrastructure and services available, and other comprehensive planning considerations.

   2. Development of multifamily, recreational and residential subdivisions of five or more lots should provide public access and joint use for community recreational facilities, except when there are constitutional or other legal constraints.

   3. Access, utilities, and public services should be available and adequate to serve existing needs and/or planned future development.

   4. Non-commercial recreational areas should be allowed.

2. **Urban Park Environment**
The purpose of the urban park environment is to protect and restore ecological functions in urban and developed settings, while allowing public access and a variety of park and recreation uses.

Designation Criteria: An urban park environment designation will be assigned to publicly owned shorelands, including all parks, street ends and public access points.

Management policies:

1. Uses that preserve the natural character of the area or promote preservation of open space, or sensitive lands either directly or over the long term should be the primary allowed uses. Uses that result in restoration of ecological functions should be allowed if the use is otherwise compatible with the purpose of the environment and the setting.

2. Standards should be established for shoreline stabilization measures, vegetation conservation, water quality, and shoreline modifications within the urban park designation. These standards should ensure that new development does not result in a net loss of shoreline ecological functions.

3. Public access and public recreation objectives should be implemented whenever feasible and significant ecological impacts can be mitigated.

4. Water-oriented uses should be given priority over nonwater-oriented uses. Water-dependent uses should be given highest priority.

II. GENERAL GOALS AND POLICIES

1. PUBLIC ACCESS

The following goal and policies address the ability of the public to reach, touch, view, and travel on Lake Washington and to view the water and the shoreline from public places

GOAL

*Increase and enhance public access to and along the Mercer Island Shoreline where appropriate and consistent with public interest, provided public safety, private property rights, and unique or fragile areas are not adversely affected.*

POLICIES

1. Public access to and along the water’s edge should be consistent with the public safety, private property rights, and conservation of unique or fragile areas.
2. Public access to and along the water’s edge should be available in publicly owned shoreline areas.

3. When substantial modifications or additions are proposed to substantial developments, the developer should be encouraged to provide for public access to and along the water’s edge if physically feasible provided that no private property be taken involuntarily without due compensation.

4. In new developments on the shoreline, the water’s edge should be kept free of buildings.

5. Where publicly owned shoreline areas are available for public pedestrian pathways, these should be developed as close to the water’s edge as reasonable.

6. Views of the shoreline and water from shoreline and upland areas should be preserved and enhanced. Enhancement of views should not be construed to mean excessive removal of vegetation.

7. Rights-of-way on the shoreline should be made available for public access where appropriate.

8. Access onto shoreline public street ends should be enhanced.

9. Consideration should be given to the handicapped, disabled, and elderly when developing public access to shoreline areas.

2. CONSERVATION AND WATER QUALITY

The following goal and policies address the protection of the resources of the shoreline.

GOAL

*The resources and amenities of Lake Washington are to be protected and preserved for use and enjoyment by present and future generations.*

POLICIES

1. Existing natural resources should be conserved, consistent with private property rights.

   a. Aquatic habitats, particularly spawning grounds, should be protected, improved and, if feasible, increased.

   b. Wildlife habitats should be protected, improved and, if feasible, increased.
c. Critical areas have been mapped. Access and use should be restricted if necessary for the conservation of these areas. The type and degree of development to be allowed should be based upon such factors as: slope, soils, vegetation, geology and hydrology.

d. Water quality should be maintained at a level to permit recreational use (specifically swimming), provide a suitable habitat for desirable forms of aquatic life and satisfy other required human needs.

2. Existing and future activities on Lake Washington and its shoreline should be designed to minimize adverse effects on the natural systems.

3. Uses or activities within all drainage basins related to Lake Washington should be considered as an integral part of shoreline planning.

   a. Developers should be required to bear the cost of providing safeguards to prevent storm drainage damage resulting from their development.

   b. Excessive soil erosion and sedimentation and other polluting elements should be prevented from entering and adversely affecting the Lake and its constituent watercourses.

   c. Restoration of natural systems adversely affected by sedimentation and pollution should be encouraged.

   d. The destruction of watercourses feeding into Lake Washington should be discouraged.

   e. The planning and control of surface drainage water from Mercer Island into Lake Washington should be based on such factors as the quality and quantity of water, rate of flow and containment, etc. The latest applicable data should be used in the implementation of a storm drainage system.

4. Shoreline areas having historical, archaeological, cultural, educational or scientific value should be protected and restored.

   a. Public and private cooperation should be encouraged in site preservation and protection.

   b. Suspected or newly discovered archaeological sites should be kept free from intrusion until their value is determined.
5. Festivals and temporary uses involving public interest and not substantially or permanently impairing water quality or unique and fragile areas should be permitted.

6. Protect, conserve and establish vegetation along the shoreline edge, especially native vegetation.

7. Critical areas should be protected at a level at least equal to that provided by the City’s critical area regulations adopted pursuant to the Growth Management Act.

III. SHORELINE MODIFICATIONS

1. SHORELINE STABILIZATION

The following policy addresses shoreline stabilization.

POLICY

1. Non-structural stabilization measures are preferred over “soft” structural measures. Soft structural measures are preferred over hard structural measures.

2. PIERS AND MOORAGES

The following policies address piers and moorages.

POLICIES

1. New piers and docks should be allowed only for water-dependent uses or public access. Piers and docks associated with single family residences are considered a water-dependent use.

2. New piers and docks should be designed and constructed to avoid or, if that is not possible, to minimize and mitigate the impacts to ecological functions.

3. The repair, renovation, and replacement of existing piers and docks should be allowed.

4. Property owners who repair, renovate or replace existing piers and docks should be provided information on the best materials and methods for environmental enhancement.
3. LANDFILL AND DREDGING

Landfill is usually contemplated in locations where the water is shallow and where rooted vegetation often occurs. In their natural condition these same areas provide suitable habitat for fish and wildlife feeding, breeding and shelter. Biologically the shallow vegetation areas tend to be highly productive portions of the Lake. For these reasons governmental agencies and scientific experts have generally taken a stand against landfill.

In most cases when dredging is done it also occurs in shallow areas and may disturb the environment in the following ways: 1) temporary reduction of water clarity from suspended sediments, 2) losses in aquatic plants and animals by direct removal or from the sedimentation of suspended materials, 3) alteration in the nutrient and oxygen levels of the water column, and 4) suspension of toxic materials from the sediments into the water column.

POLICIES

1. Fills should be located, designed, and constructed to protect shoreline ecological functions and ecosystem-wide processes, including channel migration.

2. Fills waterward of the ordinary high-water mark should be allowed only when necessary to support: water-dependent use, public access, cleanup and disposal of contaminated sediments as part of an interagency environmental clean-up plan, disposal of dredged material considered suitable under, and conducted in accordance with the Dredged Material Management Program of the Department of Natural Resources, expansion or alteration of transportation facilities of statewide significance currently located on the shoreline and then only upon a demonstration that alternatives to fill are not feasible, mitigation action, environmental restoration, beach nourishment or enhancement project. Fills waterward of the ordinary high-water mark for any use except ecological restoration should require a conditional use permit.

3. Dredging and dredge material disposal should be done in a manner which avoids or minimizes significant ecological impacts and impacts which cannot be avoided should be mitigated in a manner that assures no net loss of shoreline ecological functions.

4. New development should be sited and designed to avoid or, if that is not possible, to minimize the need for new and maintenance dredging. Dredging for the purpose of establishing, expanding, or relocating or reconfiguring navigation channels and basins should be allowed where necessary for assuring safe and efficient accommodation of existing navigational uses and then only when significant ecological impacts are
minimized and when mitigation is provided. Maintenance dredging of established navigation channels and basins should be restricted to maintaining previously dredged and/or existing authorized location, depth, and width.

5. Dredging waterward of the ordinary high-water mark for the primary purpose of obtaining fill material should not be allowed, except when the material is necessary for the restoration of ecological functions. When allowed, the site where the fill is to be placed must be located waterward of the ordinary high-water mark. The project must be either associated with a MTCA or CERCLA habitat restoration project or, if approved through a shoreline conditional use permit, any other significant habitat enhancement project.

4. BREAKWATERS AND SIMILAR FEATURES

POLICY

1. The use of new breakwaters and other similar structures should be limited.

5. SHORELINE HABITAT AND NATURAL SYSTEMS ENHANCEMENT PROJECTS

POLICY

1. Foster habitat and natural system enhancement projects that are consistent with the City’s Shoreline Restoration Plan and whose primary purpose is restoration of the natural character and ecological functions of the shoreline.

IV. SPECIFIC SHORELINE USES AND ACTIVITIES

The following goal and policy address the general distribution, location, and extent of all uses within shoreline jurisdiction.

GOAL

Ensure that the land use patterns within shoreline areas are compatible with shoreline environment designations and will be sensitive to and not degrade habitat, ecological systems, and other shoreline resources.

POLICY
1. All activities, development and redevelopment within the City’s shoreline jurisdiction should be designed to ensure no net loss of shoreline ecological functions.

1. **BOATING FACILITIES**

The following policies address boating facilities.

**POLICIES**

1. New boating facilities should be designed to meet health, safety, and welfare requirements; mitigate aesthetic impacts; minimize impacts to neighboring uses; provide public access; assure no net loss of ecological functions and prevent other significant adverse impacts; and protect the rights of navigation and access to recreational areas.

2. **RECREATIONAL DEVELOPMENT**

Mercer Island has approximately 15 miles of shoreline most of which is devoted to low density single family residences. It could be said that almost 100% of the developed shoreline of Mercer Island is devoted to water-dependent recreation, assuming that the waterfront residents find both active and passive enjoyment from their shoreline location. The remainder of the shoreline is set aside for public or semi-public water-related recreation except for a fraction which is utilized for bridge crossings and utilities. The latter, in some cases, is also available for public access to the water.

The City presently owns approximately 6,000 feet of shoreline which is developed as waterfront parks with facilities for swimming, fishing and car-top boat launching. Beaches at Luther Burbank Park and Groveland Beach Park are staffed with lifeguards during the summer season. Unguarded designated swimming areas also exist at Calkins Landing and Clarke Beach Park. Dock facilities that serve fishing and other activities are located at Luther Burbank Park and Proctor Landing, and seasonally at Clarke and Groveland Beaches. The City manages several summer camps for youth and adult with instruction on sailing and kayaking based at Luther Burbank Park.

Nineteen street ends of widths varying from 30’ to 75’ add an additional 600 lineal feet of shoreline to the public domain and provide the potential for considerable access to the water’s edge in all segments of the Island. Development of some street ends has been undertaken as a cooperative effort between the city and the adjacent neighborhoods. Some provide swimming access, others offer car-top launching access, others provide minimal access solely for passive enjoyment because of the limitation of size or topography, and lack of neighborhood interest and availability of funds. Three street ends were re-developed in 2003, which included eliminating bulkheads and enhancing near shore habitat.
There are two private waterfront clubs owning a combined 1,194 feet of frontage. They provide swimming, moorage, and boat launching facilities to a significant portion of the Island’s families.

Covenant Shores, a continuing care retirement community, owns approximately 650 feet of shoreline which serves as open space, swimming, picnicking, and moorage for its residential units. Numerous private neighborhood waterfront “parks,” with shared access for neighboring residences, exist along the shoreline.

Regarding waterfront recreation, The City of Mercer Island Parks and Recreation Plan, adopted in 2007, calls for Capital improvements at 2 waterfront facilities to enhance recreation opportunities. Shoreline restoration, swim beach enhancements and dock area improvements are anticipated at Luther Burbank Park, and improved boat launching and retrieval is anticipated with planned improvements at the Mercer Island Boat Launch. Future development of Luther Burbank Park is also subject to the Luther Burbank Master Plan.

GOAL

*Water-dependent recreational activities available to the public are to be encouraged and increased on the shoreline of Mercer Island where appropriate and consistent with the public interest.*

POLICIES

1. Provide additional public water-oriented recreation opportunities.

2. Locate public recreational uses in shoreline areas that can support those uses without risks to human health, safety, and/or security, while minimizing effects on shoreline functions, private property rights, and/or neighboring uses.

3. Priority should be given to recreational development for access to and use of the water.

3. RESIDENTIAL DEVELOPMENT

Present residential zoning on Mercer Island’s shoreline is for single family residential uses, and conditional uses that are complementary to the single family environment, such as public parks, private recreational areas, retirement homes located on properties used primarily for a place of worship, and noncommercial recreational areas. It should be noted that some of the shoreline is not yet developed as intensely as it could be under existing zoning. Several large shoreline properties now used by one family could be subdivided to allow from one to three additional residences.
GOAL

*Existing residential uses are to be recognized, and new residential construction will be subject to certain limitations where applicable.*

POLICIES

1. Existing single-family residential uses will be protected. New construction or modifications should be allowed within the framework of the policies in this document and City Ordinance.

2. In single-family developments within the shoreline, the water’s edge should be kept free of buildings.

3. Public access does not include the right to enter upon private residential property without the permission of the owner.

4. New overwater residential dwellings should not be permitted.

5. Single family residences should be identified as a priority use.

4. TRANSPORTATION FACILITIES

A. CIRCULATION

Principal transportation routes on Mercer Island include Inter-State 90, a highway that crosses Lake Washington via Mercer Island and two connecting bridges, and a series of arterial roads that follow the shoreline around the Island a short distance inland.

Thus, shoreline-related roads form an important element of principal transportation routes on the Island. In addition, numerous lateral roads connect the shoreline following arterials with properties along the water’s edge, and frequently provide public access to the lake through developed and undeveloped street ends as well as visual access to the lake.

A rudimentary system of pedestrian and bicycle ways has gradually developed along portions of the shoreline following arterials; more definitive development of
such ways is planned via the City’s Pedestrian and Bicycle Facility Plan. Buses provide important modes of on-Island transportation as well as access to neighboring municipalities and employment centers.

GOAL

_A balanced transportation system for moving people and goods is to be encouraged within existing corridors._

POLICIES

1. Develop efficient circulation systems in a manner that assures the safe movement of people and goods while minimizing adverse effects on shoreline use, developments and shoreline ecological functions.

2. Provide and/or enhance physical and visual public access to shorelines along public roads in accordance with the public access goals.

3. Encourage shoreline circulation systems that provide alternative routes and modes of travel. Within the I-90 corridor, allow movement of people by means of transit.

B. PARKING

The following policies address parking.

POLICIES

1. Parking facilities for motor vehicles or boat trailers should be minimized in the shoreline area.
   
a. Parking facilities should not be permitted along the water’s edge.
   
b. Upland parking facilities for shoreline activities should provide adequate pedestrian access to the shoreline.
   
c. Upland parking facilities should be designed and landscaped to minimize adverse impacts on the shoreline and adjacent lands.
d. Parking facilities should be planned, located and designed where they will have the least possible adverse effect on unique or fragile shoreline features, and will not result in a net loss of shoreline ecological functions or adversely impact existing or planned water-dependent uses.

e. Parking facilities in shorelines should minimize the environmental and visual impacts.

5. UTILITIES

The following policies address utilities.

POLICIES

1. Utility facilities should be designed and located to assure no net loss of shoreline ecological functions, preserve the natural landscape, and minimize conflicts with present and planned land and shoreline uses while meeting the needs of future populations.

2. Utilities should be located in existing rights of way and corridors whenever possible.
ATTACHMENT C
TO
ORDINANCE NO. 13C-12
SHORELINE RESTORATION PLAN

For the City of Mercer Island
Shoreline Master Program

Prepared by:

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1 INTRODUCTION

A jurisdiction’s Shoreline Master Program applies to activities in the jurisdiction’s shoreline zone. Activities that have adverse affects on the ecological functions and values of the shoreline must provide mitigation for those impacts. By law, the proponent of that activity is not required to return the subject shoreline to a condition that is better than the baseline level at the time the activity takes place. How then can the shoreline be improved over time in areas where the baseline condition is severely, or even marginally, degraded?

Section 173-26-201(2)(f) WAC of the Shoreline Master Program Guidelines1 says:

“master programs shall include goals and policies that provide for restoration of such impaired ecological functions. These master program provisions shall identify existing policies and programs that contribute to planned restoration goals and identify any additional policies and programs that local government will implement to achieve its goals. These master program elements regarding restoration should make real and meaningful use of established or funded nonregulatory policies and programs that contribute to restoration of ecological functions, and should appropriately consider the direct or indirect effects of other regulatory or nonregulatory programs under other local, state, and federal laws, as well as any restoration effects that may flow indirectly from shoreline development regulations and mitigation standards.”

However, degraded shorelines are not just a result of pre-Shoreline Master Program activities, but also of unregulated activities and exempt development. The new Guidelines also require that “[l]ocal master programs shall include regulations ensuring that exempt development in the aggregate will not cause a net loss of ecological functions of the shoreline.” While some actions within shoreline jurisdiction are exempt from a permit, the Shoreline Master Program should clearly state that those actions are

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not exempt from compliance with the Shoreline Management Act or the local Shoreline Master Program. Because the shoreline environment is also affected by activities taking placed outside of a specific local master program’s jurisdiction (e.g., outside of city limits, outside of the shoreline zone within the city), assembly of out-of-jurisdiction actions, programs and policies can be essential for understanding how the City fits into the larger watershed context. The latter is critical when establishing realistic goals and objectives for dynamic and highly inter-connected environments.

As directed by the Guidelines, the following discussions provides a summary of baseline shoreline conditions, lists restoration goals and objectives, and discusses existing or potential programs and projects that positively impact the shoreline environment. Finally, anticipated scheduling, funding, and monitoring of these various comprehensive restoration elements are provided. In total, implementation of the Shoreline Master Program (with mitigation of project-related impacts) in combination with this Restoration Plan (for restoration of lost ecological functions that occurred prior to a specific project) should result in a net improvement in the City of Mercer Island’s shoreline environment in the long term.

In addition to meeting the requirements of the Guidelines, this Restoration Plan is also intended to support the City’s or other non-governmental organizations’ applications for grant funding, and to provide the interested public with contact information for the various entities working within the City to enhance the environment.

## 2 SHORELINE INVENTORY SUMMARY

### 2.1 Introduction

The City conducted a comprehensive inventory of its Lake Washington shoreline in 2008. The purpose of the shoreline inventory was to facilitate the City of Mercer Island’s compliance with the State of Washington’s Shoreline Management Act (SMA) and updated Shoreline Master Program Guidelines. The inventory describes existing physical and biological conditions in the Lake Washington shoreline zone within City limits, including recommendations for restoration of ecological functions where they are degraded. The full Final Shoreline Analysis Report is included as an appendix to the Shoreline Master Program, and is summarized below.

### 2.2 Shoreline Boundary

As defined by the Shoreline Management Act of 1971, shorelines include certain waters of the state plus their associated “shorelands.” Shorelands are defined as:
“those lands extending landward for 200 feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward 200 feet from such floodways; and all wetlands and river deltas associated with the streams, lakes, and tidal waters which are subject to the provisions of this chapter…Any county or city may determine that portion of a one-hundred-year-floodplain\(^2\) to be included in its master program as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward two hundred feet therefrom (RCW 90.58.030)”

Shorelands in the City of Mercer Island include only areas within 200 feet of the ordinary high water mark, as established by the U.S. Army Corps of Engineers for Lake Washington, and any associated wetlands within shoreline jurisdiction. As part of the shoreline jurisdiction assessment, there were two wetlands identified in Luther Burbank Park that extend the shoreline jurisdiction beyond 200 feet from the Lake Washington ordinary high water mark (Figure 1). Lake Washington does not have a floodway or floodplain.

![Figure 1: Mercer Island Shoreline Jurisdiction Including Associated Wetlands (inset)](image)

\(^2\) According to RCW 173-220-030, 100-year floodplain is “that land area susceptible to being inundated by stream derived waters with a one percent chance of being equaled or exceeded in any given year. The limit of this area shall be based upon flood ordinance regulation maps or a reasonable method which meets the objectives of the act;”
2.3 Inventory

The shoreline inventory is divided into five main sections: Introduction, Current Regulatory Framework Summary, Shoreline Inventory, Analysis of Ecological Functions and Ecosystem-wide Processes, Land Use Analysis and Shoreline Management Recommendations. The City’s shoreline jurisdiction is divided into two segments: Urban Residential, and Urban Park. These segments are based on existing land use and zoning, as well as the City’s current environment designations.

2.3.1 Land Use and Physical Conditions

Existing Land Use

In general, the City of Mercer Island shoreline area is fully developed. The few areas not occupied by single or multi-family residential uses are either private recreation clubs, vacant lots, City parks or landings. With the possible exception of limited additional residential lands being acquired for public open space, land uses along the shoreline are not expected to change over the next 20 years, although re-builds, substantial remodels and some redevelopment of single-family residential are anticipated. The City’s shoreline is predominately zoned single-family residential (R-8.4, R-9.6, R-12 and R-15). Residential and private club uses (Urban Residential designation) comprise 90.4 percent of the City’s shoreline area, Luther Burbank Park (Urban Park designation) comprises 6 percent, and public recreation and open space (Urban Park designation) comprise the remaining 3.6 percent of the shoreline area. There are five City parks, one City boat launch, two private recreational clubs, and one private retirement facility on the waterfront. There are also 13 City-owned street ends (“landings”) located within the shoreline area. The Mercerwood Shore Club and Mercer Island Beach Club are private waterfront recreation clubs that include clubhouses, picnic areas, swimming beaches, tennis and fitness facilities, boat moorage, and other amenities. Covenant Shores retirement center includes private boat moorage and other similar private recreational opportunities. There are 57 privately owned lots (roughly 6%) within the shoreline jurisdiction that are considered vacant or undeveloped, 44 of which are along the shoreline. Of those 44 properties, only 10 have development potential.

Parks and Open Space/Public Access

There are a number of opportunities to access the Mercer Island waterfront, whether at public parks, landings or the City boat launch. Luther Burbank Park is the City’s largest multi-use park and is considered the crown jewel of the park system (Figure 2). The park is 77 acres and includes a swimming beach, public boat...
a dock, public fishing pier, former Luther Burbank School brick dormitory, steam plant and dairy ruins, trails, off-leash dog area, and other groomed and wooded areas. Calkins Point, located on the north end of the park, has been slowly eroding away and has been identified by the City as a high-priority for shoreline restoration.

Other parks located along the shoreline include Clarke Beach (Figure 3), Groveland Beach, Slater Park, and Park on the Lid. These parks provide multiple opportunities for water-related recreational uses, including swimming, fishing, picnicking, and active and passive recreation. Mercer Island Boat Launch is located along the City’s northeast shore and provides a Lakes-to-Locks Water Trail Launch and Landing Site.

There are 13 street-end public rights-of-way into public spaces and parks that provide access to the waterfront. The landings, which vary in the level of development, include swimming and fishing areas, boat launch facilities and docks. A few of the landings remain undeveloped and provide opportunities for future restoration or improvements.

**Figure 3: Clark Beach Park**

*Shoreline Modifications*

The Mercer Island shoreline is heavily modified with close to 78 percent of the shoreline armored at or near the ordinary high water mark and a pier density of approximately 47.5 overwater structures per mile. This compares to 71 percent armored and 36 piers per mile for the entire Lake Washington shoreline. Thus, for Mercer Island, both pier density and shoreline armorning are slightly higher than the lake-wide figures. Many of the piers have one or more boatlifts.

As expected, the Urban Residential segment has the most altered shoreline, with 82 percent armored with either vertical or boulder bulkheads. The Urban Park segment is 35 percent armored. It is not uncommon around Lake Washington for some historic fills to be associated with the original bulkhead construction, usually to create a more level or larger yard. Most of these shoreline fills occurred at the time that the lake elevation was lowered during construction of the Hiram Chittenden Locks.

Also as expected, the highest amount of overwater cover per lineal foot of shoreline can be found in the Urban Residential segment. This can be attributed to the presence of a
number of residential homes within this segment, as well as two beach clubs which have
marinas.
The full shoreline inventory includes a more in-depth discussion of the above topics,
as well as information about transportation, stormwater and wastewater utilities,
impervious surfaces, and historical/archaeological sites, among others.

2.3.2 Biological Resources and Critical Areas

With the exception of some portions of the shoreline along Luther Burbank Park (Urban
Park), the shoreline zone itself is generally deficient in high-quality biological resources
and critical areas, primarily because of the extensive residential development and its
associated shoreline modifications. There are a number of City parks along the
shoreline, but a majority of these are mostly well manicured and include extensive
shoreline armoring or pier and dock structures. The highest-functioning shoreline area
is Luther Burbank Park, which contains a majority of the City’s last unaltered shoreline.
There are also a few City-owned landings which are undeveloped, but these are
surrounded by residential development and do not cover an extensive area of the
shoreline area. Virtually all of the Mercer Island shoreline is encumbered by
geologically hazard areas, including seismic, erosion and landslide areas. According to
City data, there are two wetlands inventoried within shoreline jurisdiction, both of
which are located in Luther Burbank Park. There are a number of streams that discharge
into Lake Washington, including 39 perennial streams, 13 of which have been identified
as having potential for fish use near their mouth to Lake Washington. These streams are
used by Chinook, coho, and sockeye salmon, as well as cutthroat trout. Many of the
smaller tributaries to Lake Washington originate as hillside seeps or springs and flow
seasonally or during periods of heavy rains. Many of these smaller systems are piped at
some point and discharge directly to Lake Washington via a closed system. These
streams have been impacted extensively by basin development, resulting in increased
peak flows, unstable and eroding banks, loss of riparian vegetation, and fish and debris
passage barriers. These changes have altered their contributions of sediment, organic
debris, and invertebrates into Lake Washington.

WDFW mapping of Priority Habitat and Species (WDFW 2008) also indicates the
presence of other Fish and Wildlife Habitat Conservation Areas within and adjacent to
the shoreline zone. These include historic and current bald eagle nest locations,
wetlands, and urban natural open space (parks and other green spaces). Segments B
and C, Urban Park and Urban Residential respectively, generally do not contain any
significant fish or other wildlife habitats other than Lake Washington. Extensive
residential and park development, which includes landscaping and shoreline
modifications, has removed much of the potential for riparian habitat.
3 Restoration Goals and Objectives

According to the Lake Washington/Cedar/Sammamish Watershed (WRIA) Near-Term Action Agenda For Salmon Habitat Conservation, Lake Washington suffers from “Altered trophic interactions (predation, competition), degradation of riparian shoreline conditions, altered hydrology, invasive exotic plants, poor water quality (phosphorus, alkalinity, pH), [and] poor sediment quality” (WRIA 8 Steering Committee 2002). Mercer Island’s Final Shoreline Analysis Report (The Watershed Company 2009) provides supporting information that validates these claims specifically in the City’s shoreline jurisdiction. The WRIA 8 Action Agenda established four “ecosystem objectives,” which are intended to guide development and prioritization of restoration actions and strategies. The objectives are as follows:

- “Maintain, restore, or enhance watershed processes that create habitat characteristics favorable to salmon.
- Maintain or enhance habitat required by salmon during all life stages and maintain functional corridors linking these habitats.
- Maintain a well-dispersed network of high-quality refuge habitats to serve as centers of population expansion.
- Maintain connectivity between high-quality habitats to allow for population expansion into recovered habitat as degraded systems recover.”

The WRIA 8 restoration objectives, in combination with the results of the City’s Final Shoreline Analysis Report, the direction of Ecology’s Shoreline Master Program Guidelines, and the City’s commitment (Appendix A) to support the Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan, are the foundation for the following goals and objectives of the City of Mercer Island’s restoration strategy. Although the WRIA 8 Action Agenda and the Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan are salmon-centered, pursuit of ecosystem-wide processes and ecological functions performance that favors salmon generally captures those processes and functions that benefit all fish and wildlife.

**Goal 1** – Maintain, restore or enhance watershed processes, including sediment, water, wood, light and nutrient delivery, movement and loss.

**Goal 2** – Maintain or enhance fish and wildlife habitat during all life stages and maintain functional corridors linking these habitats.

**Goal 3** – Contribute to conservation and recovery of chinook salmon and other anadromous fish, focusing on preserving, protecting and restoring habitat with the intent to recover listed species, including sustainable, genetically diverse, harvestable populations of naturally spawning chinook salmon.
System-wide restoration objectives

- Continue to work collaboratively with other jurisdictions and stakeholders in WRIA 8 to implement the Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan.
- Use the scientific foundation and the conservation strategy as the basis for local actions recommended in the Chinook Salmon Conservation Plan and as one source of best available science for future projects, ordinances, and other appropriate local government activities.
- Use the comprehensive list of actions, and other actions consistent with the Chinook Salmon Conservation Plan, as a source of potential site-specific projects and land use and public outreach recommendations.
- Use the start-list to guide priorities for regional funding in the first ten years of Chinook Salmon Conservation Plan implementation, and implementing start-list actions through local capital improvement projects, ordinances, and other activities.
- Seek funding for various restoration actions and programs from local sources and by working with other WRIA 8 jurisdictions and stakeholders to seek federal, state, grant and other funding opportunities.
- Develop a public education plan to inform private property owners in the shoreline zone and in the remainder of the City about the effects of land management practices and other unregulated activities (such as vegetation removal, pesticide/herbicide use, car washing) on fish and wildlife habitats.

Lake Washington restoration objectives

- Improve Lake Washington tributary stream health by eliminating man-made barriers to anadromous fish passage, preventing the creation of new barriers, and providing for transport of water, sediment and organic matter at all stream crossings.
- Improve Lake Washington and Lake Washington tributary stream health by identifying hardened and eroding lakeshores and streambanks, and correcting to the extent feasible with bioengineered stabilization solutions.
- Improve Lake Washington and Lake Washington tributary stream health by increasing large woody debris recruitment potential through plantings of...
trees in the riparian corridors, particularly conifers. Where feasible, install large woody debris to meet short-term needs.

- Increase quality, width and diversity of native vegetation in protected corridors adjacent to stream and lake habitats to provide safe migration pathways for fish and wildlife, food, nest sites, shade, perches, and organic debris. Strive to control non-indigenous plants or weeds that are proven harmful to native vegetation or habitats.
- Reconnect and enhance small creek mouths as juvenile rearing areas.
- Habitat in small Lake Washington tributaries, such as those in the City of Mercer Island, should be restored for coho so that production of cutthroat trout, which prey on juvenile chinook salmon in Lake Washington, is reduced.
- Decrease the amount and impact of overwater and in-water structures through minimization of structure size and use of innovative materials such as grated decking.
- Participate in lake-wide efforts to reduce populations of non-native aquatic vegetation.

4 List of Existing and Ongoing Projects and Programs

The following series of existing projects and programs are generally organized from the larger watershed scale to the City-scale, including City projects and programs and finally non-profit organizations that are also active in the Mercer Island area.

4.1 Water Resource Inventory Area (WRIA) 8 Participation

Mercer Island has taken advantage of outreach and education offered by WRIA 8 staff on salmon-friendly shoreline landscape design. Mercer Island continues to be involved in the Forum at both the elected official and staff level. The City was one of 27 members of the WRIA 8 Forum, which participated in financing and developing the Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan. The Chinook Salmon Conservation Plan includes the City of Mercer Island’s implementation commitment in the form of City Council Resolution 1347, approved September 6, 2005 (Appendix A).

The City’s preparation of the Shoreline Analysis Report Including Shoreline Inventory and Characterization of the City of Mercer Island’s Lake Washington Shoreline (The Watershed Company 2009) and this Shoreline Restoration Plan are important steps
toward furthering the goals and objectives of the WRIA 8 Chinook Salmon Conservation Plan. The City’s Shoreline Master Program update products rely heavily on the science included in the WRIA 8 products, and incorporate recommended actions from the WRIA 8 products (Table 1).

To review, the WRIA 8 Steering Committee’s mission and goal statements state that the Plan shall: 1) recognize that local governments are key implementing entities for the plan, because of their responsibilities for land use, 2) direct most future population growth to already urbanized areas, because new development has greater negative effects on hydrology and ecological health of streams in rural than in urban areas, 3) create incentives for behavior that would support Plan goals, and 4) be coordinated with the Growth Management Act, local and regional responses to the Clean Water Act, other environmental laws and past/current planning efforts.

The Plan presents an Action Start-List that attempts to compile the land use, site-specific habitat protection and restoration projects, and public outreach and education recommendations into a single strategy list which focuses watershed priorities yet also provides a manageable number of actions. Conservation priority actions identified for WRIA 8 chinook salmon habitat within Lake Washington included in the Plan are as follows:

- Reduce predation on juvenile migrants in Lake Washington by providing increased rearing and refuge opportunities.
- Restore shallow water habitats and creek mouths for juvenile rearing and migration.

Table 1. The Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan Action Start-List for Lake Washington and Status of Implementation in the City of Mercer Island

<table>
<thead>
<tr>
<th>Action Item</th>
<th>Mercer Island Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce predation to outmigrating juvenile chinook by: reducing bank hardening, restoring overhanging riparian vegetation, replacing bulkhead and rip-rap with sandy beaches with gentle slopes, and use of mesh dock surfaces and/or community docks.</td>
<td>The proposed SMP includes provisions that ensure salmon friendly shoreline design for new construction and redevelopment, including requirements for grated decking and shoreline vegetation... The City has done two projects demonstrating these techniques at public Right of Way street ends on the</td>
</tr>
<tr>
<td>Action Item</td>
<td>Mercer Island Implementation</td>
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</tr>
<tr>
<td>Increase enforcement and address nonconforming structures over long run by requiring that major redevelopment projects meet current standards.</td>
<td>Code enforcement is responsible for enforcing regulations which address public health and safety issues, including regulations related to rubbish, garbage, specific nuisances, removal of vegetation, zoning, housing, dangerous buildings, and inoperable and unlicensed vehicles on private property. Enforcement actions are taken both proactively and in response to requests for action received from citizens. The City has not recently updated its code enforcement.</td>
</tr>
<tr>
<td>Discourage construction of new bulkheads; offer incentives (e.g., provide expertise, expedite permitting) for voluntary removal of bulkheads, beach improvement, riparian revegetation.</td>
<td>The proposed SMP includes provisions that discourage construction of new bulkheads by limiting new bulkheads to only those properties that can show a demonstrated need through a geotechnical analysis.</td>
</tr>
<tr>
<td>Support joint effort by NOAA Fisheries and other agencies to develop dock/pier specifications to streamline federal/state/local permitting; encourage similar effort for bulkhead specifications.</td>
<td>The City has been coordinating on a regular basis with state and federal agencies to help develop consistent pier and bulkhead design standards, including coordination with adjacent jurisdictions.</td>
</tr>
<tr>
<td>Promote value of light-permeable docks, smaller piling sizes, and community docks to both salmon and landowners through direct mailings to lakeshore landowners or registered boat owners sent with property tax notice or boat registration tab renewal.</td>
<td>The City has hosted workshops for lakeshore owners which has highlighted the value of eco-friendly pier construction. This includes King County Lakeshore Living and Greenshorelines workshops.</td>
</tr>
<tr>
<td>Develop workshop series specifically for lakeshore property owners on lakeside living: natural yard care, alternatives to vertical wall bulkheads, fish friendly dock design, best management practices for aquatic weed control, porous paving, and environmentally friendly methods of maintaining boats, docks, and decks.</td>
<td>King County has led this effort. As mentioned above, the City has hosted workshops on this topic in the past (Lakeshore Living and Greenshorelines). This work is expected to continue in the near future.</td>
</tr>
</tbody>
</table>

*Protect and restore water quality in tributaries and along shoreline. Restore coho runs in smaller tributaries as control mechanism to reduce the cutthroat population. Reconnect and enhance small creek mouths as juvenile rearing areas.*
<table>
<thead>
<tr>
<th>Action Item</th>
<th>Mercer Island Implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address water quality and high flow impacts from creeks and shoreline development through NPDES Phase 1 and Phase 2 permit updates, consistent with Washington Department of Ecology’s 2001 Stormwater Management Manual, including low impact development techniques, on-site stormwater detention for new and redeveloped projects, and control of point sources that discharge directly into the lakes.</td>
<td>The City currently implements Ecology’s 2005 Stormwater Management Manual for Western Washington through its NPDES Phase 2 permit. The NPDES Phase II permit is required to cover the City’s stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges (e.g., spills, illegal dumping, wastewater), management and regulation of construction site runoff, management and regulation of runoff from new development and redevelopment, and pollution prevention and maintenance for municipal operations.</td>
</tr>
<tr>
<td>Encourage low impact development through regulations, incentives, education/training, and demonstration projects.</td>
<td>The Comprehensive Plan and the proposed SMP contain provisions which promote LID, including allowance of storm water strategies that minimize the creation of impervious surfaces, and measures to minimize the disturbance of native soils and vegetation. The City has already identified a short list of good candidates for LID demonstration projects at City facilities that will be completed in the future.</td>
</tr>
<tr>
<td>Protect and restore water quality and other ecological functions in tributaries to reduce effects of urbanization and reduce conditions which encourage cutthroat. Protect and restore forest cover, riparian buffers, wetlands, and creek mouths by revising and enforcing critical areas ordinances and Shoreline Master Programs, incentives, and flexible development tools.</td>
<td>The City updated the Critical Areas Ordinance in 2005. Management of the City’s critical areas using these regulations should help insure that ecological functions and values are not degraded, and impacts to critical areas are mitigated. The City also coordinates ongoing Maintenance activities, specifically with drainage basins, with open spaces improvements on adjoining properties. The City currently implements the 2004 Open Space Vegetation Plan (City of Mercer Island 2004) which promotes</td>
</tr>
<tr>
<td>Action Item</td>
<td>Mercer Island Implementation</td>
</tr>
<tr>
<td>----------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Promote through design competitions and media coverage the use of “rain gardens” and other low impact development practices that mimic natural hydrology.</td>
<td>The City actively promotes rain garden and LID education through local news media and support for ongoing workshops.</td>
</tr>
</tbody>
</table>

### 4.2 Comprehensive Plan Policies

The City updated its Comprehensive Plan on July 5, 2005. The updated Comprehensive Plan, specifically the Conservation Element of the Shoreline Goals and Policies, contains a number of general and specific goals and policies that direct the City to permit and condition development in such a way that the natural environment is preserved and enhanced. The specific goals and policies include:

**Goal:** The resources and amenities of Lake Washington are to be protected and preserved for use and enjoyment by present and future generations.

**Policy 1:** Existing natural resources should be conserved, consistent with private property rights.

**Policy 2:** Existing and future activities on Lake Washington and its shoreline should be designed to minimize adverse effects on the natural systems.

**Policy 3:** Uses or activities within all drainage basins related to Lake Washington should be considered as an integral part of shoreline planning.

**Policy 4:** Shoreline areas having historical, archaeological, cultural, educational or scientific value should be protected and restored.

Techniques suggested by the various policies to protect the natural environment include requiring setbacks from sensitive areas, preserving habitats for sensitive species, preventing adverse alterations to water quality and quantity, promoting low impact development, preserving existing native vegetation, educating the public, and mitigating necessary sensitive area impacts, among others.

### 4.3 Critical Areas Regulations

The City of Mercer Island critical areas regulations are found in Mercer Island City Code Chapter 19.07 Environment. The City completed its last critical areas regulations update
on 2005. The updated regulations are based on best available science, and provide protection to critical areas in the City, particularly for streams and wetlands. All activities which require a substantial development permit, conditional use or variance under the SMP are reviewed under the City’s CAO for consistency. As stated above, if there is a conflict between the CAO and SMP, the regulations that offer the greatest environmental protection apply.

Some of the basic components of the critical areas regulations include a four-tiered watercourse typing system with standard buffers ranging between 25 and 75 feet, and Ecology’s four-tiered wetland rating system with standard buffers ranging from 35 to 100 feet. Management of the City’s critical areas using these regulations should help insure that ecological functions and values are not degraded, and impacts to critical areas are mitigated. These critical areas regulations are one important tool that will help the City meet its restoration goals.

4.4 Stormwater Management and Planning

Although much of the City of Mercer Island’s Storm and Surface Water Utility’s jurisdiction is outside of the shoreline zone, all of the regulated surface waters, both natural and piped, are discharged ultimately into Lake Washington and thus affect shoreline conditions. According to the City’s GIS data, there are 208 known stormwater outfalls, 187 of which are located within the shoreline jurisdiction area (see Figures 5.1 - 5.3). The City’s Utilities section of the Comprehensive Plan contains the following stormwater policies:

4.1 The City shall continue to implement programs and projects designed to meet the goals and requirements of the Puget Sound Water Quality Management Plan.

4.2 The City shall actively promote and support education efforts focusing on all facets of stormwater management.

4.3 The City shall maintain and enforce land-use plans and ordinances requiring stormwater controls for new development and re-development. The ordinances shall be based on standards developed by the state Department of Ecology and shall be consistent with the policies in the Land-Use Element of this plan and the goals and policies of the City’s Development Services Group.

The City received its National Pollutant Discharge Elimination System (NPDES) Phase II Municipal Stormwater Permit in January 2007 from Ecology. The NPDES Phase II permit is required to cover the City’s stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges (e.g., spills, illegal dumping, wastewater), management and regulation of construction site runoff, management and regulation of runoff from new
development and redevelopment, and pollution prevention and maintenance for municipal operations (City of Mercer Island website).

In 2007, the Department of Ecology published information about toxics levels in fish, including fish sampled in Lake Washington (Department of Ecology 2007). Lake Washington ranked second only to the Wenatchee River near Leavenworth for a site contaminant score. Although this report does not identify specific point sources, it represents a clear need to better understand contaminant sources and control.

The City’s 2004 Open Space Vegetation Plan (City of Mercer Island 2004) was prioritized by multiple factors including storm water buffering and erosion control. It directs work to sites where it would most likely improve storm water buffering and erosion control.

4.5 Public Education

The City of Mercer Island’s Comprehensive Plan identifies various policy statements based on the goal of environmental public involvement (excerpted below). These items help guide City staff and local citizen groups in developing mechanisms to educate the public and broaden the interest in protecting and enhancing local environmental resources.

4.5.1 Land Use Element

*Natural Environment Policies*

Goal 10: The protection of the natural environment will continue to be a priority in all Island development. Protection of the environment and private property rights will be consistent with all state and federal laws.

Policy 10.1 The City of Mercer Island shall protect environmentally sensitive lands such as watercourses, geologic hazard areas, steep slopes, shorelines, wildlife habitat conservation areas, and wetlands. Such protection should continue through the implementation and enforcement of critical areas and shoreline regulations.

Policy 10.2 Land use actions, storm water regulations and basin planning should reflect intent to maintain and improve the ecological health of watercourses and Lake Washington water quality.

Policy 10.3 New development should be designed to avoid increasing risks to people and property associated with natural hazards.
Policy 10.4 The ecological functions of watercourses, wetlands, and habitat conservation areas should be maintained and protected from the potential impacts associated with development.

Policy 10.5 The City shall consider best available science during the development and implementation of critical areas regulations. Regulations will be updated periodically to incorporate new information and, at a minimum, every seven years as required by the Growth Management Act.

4.5.2 Utilities Element

Water Quality Policies

Policy 2.8 The City shall aggressively promote and support water conservation on Mercer Island and shall participate in regional water conservation activities. The goal of the City’s efforts shall be a significant and lasting reduction in Mercer Island’s peak water consumption. In 1999 the City decided to participate in SPU’s 1% Water Conservation Initiative, and continues to receive information and assistance in reducing water consumption in City facilities and in the community.

Stormwater Policies

Policy 4.2 The City shall actively promote and support education efforts focusing on all facets of stormwater management.

4.5.3 Shoreline Goals and Policies

Conservation Element

Policy 4.a. Public and private cooperation should be encouraged in site preservation and protection.

As part of the City of Mercer Island’s efforts to abide by these goals and policies, the City supports several volunteer efforts, such as Mountains to Sound Greenway sponsored events, Open Space Conservancy Trust, Forest Stewardship, Forest Stewardship training, Adopt-a-Park and EarthCorps.

4.6 Open Space Conservancy Trust

The Open Space Conservancy Trust, established by Mercer Island City Council in 1992, “was created for the express purpose of receiving and holding such real property, as transferred for open space purposes; for protecting, maintaining and preserving the
Open Space Properties; and insuring that the development and use of the Open Space Properties are both consistent and compatible with the intent and purpose of the Trust and the guidelines and polices enacted.” The trust is led by a seven member volunteer board consisting of six citizens appointed by the Mayor and one City Council member. The trust currently holds Pioneer Park as its sole property.

Contact Information: http://www.ci.mercer-island.wa.us/ccbindex.asp?ccbid=12

4.7 Mountains to Sound Greenway Trust

Mountains to Sound (MTS) Greenway Trust, a nonprofit organization founded in 1991, assists local, state, and federal agencies to acquire open space lands for permanent protection in order to create a 100-mile connected green corridor along Interstate 90.

Within the City of Mercer Island, MTS organizes and leads volunteers to improve City parks by removing invasive plants (primarily ivy) and planting native trees and shrubs. Mercer Island Parks and Recreation has teamed up with MTS and a number of other groups and organizations to host several volunteer events throughout the year.

Contact Information: http://www.miparks.org/, http://www.mtsgreenway.org/

4.8 Forest Stewardship and Adopt-A-Park Programs

Citizens of Mercer Island donate countless hours to maintain the City’s open spaces and parks through picking up litter, cutting ivy, planting and trail maintenance and repair. Forest Stewardship provides opportunities for citizens to be active with City-sponsored projects or work individually with other volunteers. Forest Stewardship training provides the skills to become Forest Stewards who are qualified to run volunteer projects on the island on behalf of the Parks and Recreation Department.

The City’s Adopt-a-Park program allows local schools or services groups to adopt a City park. The program benefits schoolchildren, who learn valuable stewardship skills, and the public who benefit from the restoration efforts.

Contact Information: miparks@mercergov.org, http://www.ci.mercer-island.wa.us/Page.asp?NavID=1515

4.9 EarthCorps

EarthCorps is a non-profit organization that provides environmental restoration service programs for young adults. These one-year programs provide opportunities to learn conservation and develop skills in leading volunteers. EarthCorps works with Mercer Island Parks and Recreation to organize and lead restoration projects, such as removing invasive plants and planting native species.
5 LIST OF ADDITIONAL PROJECTS AND PROGRAMS TO ACHIEVE LOCAL RESTORATION GOALS

The following series of additional projects and programs are generally organized from the larger watershed scale to the City-scale, including City projects and programs and finally non-profit organizations that are also active in the Mercer Island area.

5.1 Unfunded WRIA 8 Projects

The 2005 Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan does not identify any specific projects along the Mercer Island shoreline, but does include the following general recommendations to reduce predation on outmigrating juvenile chinook salmon in its “Action Start-List for Migratory Areas”:

- Encourage salmon friendly shoreline design during new construction or redevelopment by offering incentives and regulatory flexibility to improve bulkhead and dock design and revegetate shorelines. Increase enforcement and address nonconforming structures over long run by requiring that major redevelopment projects meet current standards.
- Discourage construction of new bulkheads; offer incentives (e.g., provide expertise, expedite permitting) for voluntary removal of bulkheads, beach improvement, riparian revegetation.
- Support joint effort by NOAA Fisheries and other agencies to develop dock/pier specifications to streamline federal/state/local permitting; encourage similar effort for bulkhead specifications.
- Promote value of light-permeable docks, smaller piling sizes, and community docks to both salmon and landowners through direct mailings to lakeshore landowners or registered boat owners sent with property tax notice or boat registration tab renewal. Offer financial incentives for community docks in terms of reduced permit fees, loan fees/percentage rates, taxes, and permitting time, in addition to construction cost savings.
- Develop workshop series specifically for lakeshore property owners on lakeside living: natural yard care, alternatives to vertical wall bulkheads, fish friendly dock design, best management practices for aquatic weed control, porous paving, and environmentally friendly methods of maintaining boats, docks, and decks. Related efforts include creation of a website to convey workshop material, an awareness campaign, “Build a Beach,” to illuminate impact of bulkheads on development of sandy beaches.
• Restore shoreline in Lake Washington Section 1: work with private property owners to restore shoreline in Section 1. Use interpretive signage where possible to explain restoration efforts.

5.2 Recommended Projects - Public

The following is developed from a list of opportunity areas identified within the Final Shoreline Analysis Report (The Watershed Company 2009) and is intended to contribute to improvement of impaired functions on public property. The list of recommended projects was created after reviewing the City’s CIP list and assessing field conditions during the shoreline inventory and characterization phase.

Luther Burbank Park

Two restoration projects listed in the City’s CIP include:

• Luther Burbank Shoreline Restoration (Summer 2008): removing non-native plant species, replant native vegetation, create recreation access beaches, develop habitat and maintain trail opportunities, stabilize soft banks.

• Luther Burbank Off-Leash Area (OLA) (2008): design and construct minor drainage, surfacing, shoreline, landscaping and fencing improvements in OLA.

Restoration opportunities not included in the City’s CIP include:

• In October 2005, Anchor Environmental, LLC. prepared a Shoreline Habitat Inventory that identified a number of restoration opportunities along the shoreline. Many of these have been completed or are included in the City’s CIP. However, the inventory contains several items not included in the CIP, which represent future opportunities. These include restoration of several stretches (18, 20, 21) along the shoreline. Restoration would include placement of beach nourishment, removal of invasive plants, and planting of native plants to increase overhanging vegetation.

Street-Ends (Landings) and Residential Shoreline Properties

There are two projects listed in the City’s 2007-2008 6-Year Capital Improvement Program. Both projects are currently planned for implementation in 2013.

• Groveland Beach Park: Remove invasive vegetation, replace worn playground elements, and prepare shoreline improvements.

• Clarke Beach Park: Removal of up to 300 linear feet of concrete retaining wall/bulkhead/barrier at Clarke Beaches.

• Many of the parks, street-ends and residential shoreline properties along the shoreline have the potential for improvement of ecological functions through: 1)
reduction or modification of shoreline armoring, 2) reduction of overwater cover and in-water structures (grated pier decking, pier size reduction, pile size and quantity reduction, moorage cover removal), 3) improvements to nearshore native vegetative cover, and/or 4) reductions in impervious surface coverage.

Open Space – Vegetation Management

Many parks located on Mercer Island are heavily invaded by non-native invasive species that will eventually damage and destroy forest canopies. Opportunities exist to provide vegetation and property management in existing open space areas. This will improve shoreline and upland habitat areas within the City.

5.3 Recommended Projects - Private

Generally, restoration opportunities which have been identified are focused on City property, including parks, open spaces, and street-ends. Many other restoration opportunities exist throughout the City on private property. These opportunities would include many of the same issues as listed above, but would likely occur only through voluntary means or through re-development proposals.

General: Many shoreline properties have the potential for improvement of ecological functions through: 1) reduction or modification of shoreline armoring, 2) reduction of overwater cover and in-water structures (grated pier decking, pier size reduction, pile size and quantity reduction, moorage cover removal), 3) improvements to nearshore native vegetative cover, and/or 4) reductions in impervious surface coverage. Similar opportunities would also apply to undeveloped lots which may be used as community lots for upland properties or local street-ends and utility corridors. Other opportunities may exist to improve either fish habitat or fish passage for those properties which have streams discharging to Lake Washington.

An example of how shoreline armoring might be reduced on some lots along the City’s residential areas is depicted below (Figure 4). This example displays before and after images of a lot in which the existing bulkhead is partially pulled back to create a shallow cove beach combined with natural materials. This example combines the effort to improve habitat conditions with improved access and aesthetics.

Restoration of Multiple Contiguous Properties: Through grant funding sources, restoration opportunities may be available to multiple contiguous shoreline properties, including residential lots that are interested in improving shoreline function. Restoring shoreline properties that are connected to one another would provide significantly more benefits than a more piecemeal approach. Therefore, priority should be given to restoration projects which involve multiple lots (such as accelerated permit processes).

5.4 Public Education/Outreach

The Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan includes a table outlining 53 “Outreach and Education Actions” with target audiences for each action ranging from the general public, to shoreline property
owners in general, to lakeshore property owners specifically, to businesses, to youth, and others. The complete list of WRIA 8 “Outreach and Education Actions” is included as Appendix B.

Figure 4: Partial bulkhead removal example project
6 PROPOSED IMPLEMENTATION TARGETS AND MONITORING METHODS

As previously noted, the City’s shoreline zone is occupied by single- and multi-family residences, and public recreation/open spaces. Therefore, efforts should be made to improve shoreline ecological function through the promotion of restoration and healthy practices at all levels, from large-scale marina users to single-family property owners. The City of Mercer Island already has a very active environmental community with a restoration and education focus. Continued improvement of shoreline ecological functions on the shoreline requires a more comprehensive watershed approach, which combines upland and shoreline projects and programs.

The following table (Table 2) outlines a possible schedule and funding sources for implementation of a variety of efforts that could improve shoreline ecological function, and are described in previous sections of this report.

Table 2. Implementation Schedule and Funding for Restoration Projects, Programs and Plans.

<table>
<thead>
<tr>
<th>Restoration Project/Program</th>
<th>Schedule</th>
<th>Funding Source or Commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 WRIA 8 Participation</td>
<td>Ongoing</td>
<td>The City is an active member of the WRIA 8 Forum. Membership at this time entails a commitment of staff and elected official time.</td>
</tr>
<tr>
<td>4.2 Comprehensive Plan Policies</td>
<td>Ongoing</td>
<td>The City makes a substantial commitment of staff time in the course of project and program reviews to determine consistency and compliance with the recently updated Comprehensive Plan. The next Comprehensive Plan update will occur in 2010.</td>
</tr>
<tr>
<td>4.3 Critical Areas Regulations</td>
<td>Ongoing</td>
<td>The City makes a substantial commitment of staff time in the course of project and program reviews to determine consistency and compliance with their recently updated Critical Areas Regulations.</td>
</tr>
<tr>
<td>4.4 Stormwater Planning</td>
<td>Ongoing</td>
<td>Currently, staff time and materials are the only City resource commitments. The City currently follows its 2008 Stormwater Management Program which implements the City’s Phase II NPDES permit and reports annually to Ecology. The City is also involved in the implementation of the 2005 Surface Water Master Plan, which goals includes flood reduction, water quality improvements and aquatic habitat improvements. The City also is in full compliance with NPDES permit requirements for Phase II cities.</td>
</tr>
<tr>
<td>4.5 Public Education</td>
<td>Ongoing</td>
<td>Currently, staff time and materials are provided in</td>
</tr>
<tr>
<td>Restoration Project/Program</td>
<td>Schedule</td>
<td>Funding Source or Commitment</td>
</tr>
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<tr>
<td><strong>4.6 Open Space Conservancy Trust</strong></td>
<td>Ongoing</td>
<td>Currently, staff time and materials to support these groups are part of the City’s resource commitments. The Mountains to Sound Greenway Trust also has a contractual agreement with the City for Volunteer Management Services. These groups consist of volunteers appointed by the Mayor.</td>
</tr>
<tr>
<td><strong>4.7 Mountains to Sound Greenway Trust</strong></td>
<td>Ongoing</td>
<td>Currently, staff time and materials to support these groups are the only City resource commitments. These groups consist of volunteers and are supported by the City’s Parks and Recreation Department.</td>
</tr>
<tr>
<td><strong>4.8 Forest Stewardship and Adopt-A-Park</strong></td>
<td>Ongoing</td>
<td>Currently, staff time and materials to support this group is part of the City’s resource commitments. EarthCorps also has a contractual agreement with the City for Volunteer Management Services. These groups consist of volunteers and are supported by the City’s Parks and Recreation Department.</td>
</tr>
<tr>
<td><strong>4.9 EarthCorps</strong></td>
<td>Ongoing</td>
<td></td>
</tr>
<tr>
<td><strong>5.1 Unfunded WRIA 8 Projects</strong></td>
<td>As funds and opportunity allow</td>
<td>The City Council passed a resolution in 2005 expressing its approval and support for the Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan. Projects will be funded by the City, partnering agencies and non-profit organizations, and grants as projects and funding opportunities arise.</td>
</tr>
<tr>
<td><strong>5.2 Recommended Projects - Public</strong></td>
<td>As funds and opportunity allow</td>
<td>Projects identified in this section would likely be implemented either when grant funds are obtained, when partnerships are formed between the City and other agencies or non-profit groups, or as may be required by the critical areas regulations and the Shoreline Master Program during project-level reviews by the City.</td>
</tr>
<tr>
<td><strong>5.3 Recommended Projects - Private</strong></td>
<td>As funds and opportunity allow</td>
<td></td>
</tr>
<tr>
<td><strong>5.4 Public Education/Outreach</strong></td>
<td>As funds and opportunity allow</td>
<td>On-going and future education efforts should be coordinated with the City and partnering agencies, including funding sources (grant funding, monetary donations, volunteer hours)</td>
</tr>
</tbody>
</table>
City planning staff will track all land use and development activity, including exemptions, within shoreline jurisdiction, and will incorporate actions and programs of the Parks and Utilities departments as well. A report will be assembled that provides basic project information, including location, permit type issued, project description, impacts, mitigation (if any), and monitoring outcomes as appropriate. Examples of data categories might include square feet of non-native vegetation removed, square feet of native vegetation planted or maintained, reductions in chemical usage to maintain turf, linear feet of eroding bank stabilized through plantings, linear feet of shoreline armoring removed, or number of fish passage barriers corrected. The report would also update Tables 1 and 4 above, and outline implementation of various programs and restoration actions (by the City or other groups) that relate to watershed health.

The staff report will be assembled to coincide with Comprehensive Plan updates and will be used, in light of the goals and objectives of the Shoreline Master Program, to determine whether implementation of the SMP is meeting the basic goal of no net loss of ecological functions relative to the baseline condition established in the Shoreline Analysis Report (The Watershed Company 2009). In the long term, the City should be able to demonstrate a net improvement in the City of Mercer Island’s shoreline environment.

Based on the results of this assessment, the City may make recommendations for changes to the SMP

7 RESTORATION PRIORITIES

The process of prioritizing actions that are geared toward restoration of Mercer Island’s shoreline areas involves balancing ecological goals with a variety of site-specific constraints. Briefly restated, the City’s environmental protection and restoration goals include 1) protecting watershed processes, 2) protecting fish and wildlife habitat, and 3) contributing to chinook conservation efforts. Constraints that are specific to Mercer Island include a highly developed residential shoreline along Lake Washington with several large areas of public open space/access. While some areas may already offer fairly good ecological functions (e.g. portions of Luther Burbank Park shoreline), they tend to include some additional opportunities to further enhance ecological functions. These goals and constraints were used to develop a hierarchy of restoration actions to rank different types of projects or programs associated with shoreline restoration.

Programmatic actions, like continuing WRIA 8 involvement and conducting outreach programs to local residents, tend to receive relatively high priority opposed to restoration actions involving private landowners. Other factors that influenced the hierarchy are based on scientific recommendations specific to WRIA 8, potential funding sources, and the projected level of public benefit. Restoration projects on public property, such as those identified in Section 5.2, have received a high priority ranking...
due to their availability to be funded by a variety of sources, such as CIP program, Parks Department, local grants, and non-profit groups.

Although restoration project/program scheduling is summarized in the previous section (Table 2), the actual order of implementation may not always correspond with the priority level assigned to that project/program. This discrepancy is caused by a variety of obstacles that interfere with efforts to implement projects in the exact order of their perceived priority. Some projects, such as those associated with riparian planting, are relatively inexpensive and easy to permit and should be implemented over the short and intermediate term despite the perception of lower priority than projects involving extensive shoreline restoration or large-scale capital improvement projects. Straightforward projects with available funding should be initiated immediately for the worthwhile benefits they provide and to preserve a sense of momentum while permitting, design, site access authorization, and funding for the larger, more complicated, and more expensive projects are under way.

7.1 Priority 1 – Continue Water Resource Inventory Area (WRIA) 8 Participation

Of basic importance is the continuation of ongoing, programmatic, basin-wide programs and initiatives such as the WRIA 8 Forum. Continue to work collaboratively with other jurisdictions and stakeholders in WRIA 8 to implement the Final Lake Washington/Cedar/Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan. This process provides an opportunity for the City to keep in touch with its role on a basin-wide scale and to influence habitat conditions beyond its borders, which, in turn, come back to influence water quality and quantity and habitat issues within the City.

7.2 Priority 2 – Public Education and Involvement

Public education and involvement has a high priority in the City of Mercer Island due to the predominance of residential development along the shoreline. Recent outreach efforts by other jurisdictions, such as the handbook Green Shorelines: Bulkhead Alternatives for a Healthier Lake Washington (City of Seattle 2008), have begun to change the perception of shoreline aesthetics, use, and ecological health. This and other outreach efforts (i.e. workshops, websites, example projects) are clear motivating and contributing factors for restoration activities on private property.

While many opportunities for shoreline restoration exist within City parks (see Section 5.2), multiple other opportunities also exist along community-owned properties and private marinas. Whether the focus is on single-family residential, community-owned, or marina properties, providing education opportunities and involving the public is key to success, and would possibly entail coordinating the development of a long-term Public Education and Outreach Plan (Section 5.2). This could also include focusing on gaining public support for restoration along City parks.
Specific projects from the Action Start List include developing a workshop series and website that is tailored to lakeshore property owners, and that promotes natural yard care, alternatives to vertical bulkheads, fish-friendly dock design, best management practices for aquatic weed control, porous paving, and environmentally friendly methods of maintaining boats, docks, and decks. Collaborative efforts with other jurisdictions (i.e. City of Seattle) could be completed to meet the Action Start List goals. Additionally, design competitions and media coverage could be used to promote the use of “rain gardens” and other low impact development practices that mimic natural hydrology. A home/garden tour or “Street of Dreams” type event might serve to showcase these landscape/engineering treatments.

7.3 Priority 3 – Reduce Shoreline Armoring along Lake Washington, Create or Enhance Natural Shoreline Conditions

The preponderance of shoreline armoring and its association with impaired habitat conditions, specifically for juvenile chinook salmon, has been identified as one of the key limiting factors along Lake Washington (Kerwin 2001). Nearly 78 percent of the shoreline within the City of Mercer Island is armored at or below the ordinary high water mark (The Watershed Company 2009). While there are no specifically identified projects in the Final Lake Washington/ Cedar/ Sammamish Watershed (WRIA 8) Chinook Salmon Conservation Plan that are located within Mercer Island, there are many opportunities listed in this Restoration Plan which focus on the potential reduction in shoreline armoring and subsequent restoration and enhancement of shoreline ecological functions.

However, emphasis should also be given to future project proposals that involve or have the potential to restore privately-owned shoreline areas to more natural conditions. The City should explore ways in which to assist local property owners, whether through financial assistance, permit expedition, or guidance, to team together with restoration of multiple contiguous lots.

Recommendations from the Action Start List reflect this focus and encourage salmon friendly shoreline design during new construction or redevelopment by offering incentives and regulatory flexibility to improve bulkhead and dock design and revegetate shorelines. Other recommendations from the List that support this priority include: 1) increasing enforcement that addresses nonconforming structures over the long run by requiring that major redevelopment projects meet current standards; 2) discouraging construction of new bulkheads and offer incentives (e.g., provide expertise, expedite permitting) for voluntary removal of bulkheads, beach improvement, riparian revegetation; 3) utilizing interpretive signage where possible to explain restoration efforts.
7.4 Priority 4 – Reduction of In-water and Over-water Structures

Similar to Priority 3 listed above, in-water and over-water structures, particularly piers, docks, and covered moorages, have been identified as one of the key limiting factors in Lake Washington (Kerwin 2001). Pier density along the City’s shoreline is 48 piers per mile – slightly higher than the lake-wide average of 36 piers per mile (Toft 2001), but inline with other jurisdictions around Lake Washington. The density of residential development along the City’s lakeshore is the main reason for the slightly higher-than-average pier density. While the pier density along residential shorelines is much higher than what is typically found along City-owned park property, the overall footprint of each public pier is generally much greater than is found along single-family residential sites. Opportunities exist for reduction in pier size and overall shading impacts through pier modifications on public sites.

Although no specific privately-owned project sites to reduce in-water and over-water structures within residential areas are identified here, future project proposals involving reductions in the size and/or quantity of such structures should be emphasized. Such future projects may involve joint-use pier proposals or pier reconstruction and may be allowed an expedited permit process.

Action Start List Recommendations in support of Priority 4 include: 1) supporting the joint effort by NOAA Fisheries and other agencies to develop dock/pier specifications that streamline federal/state/local permitting; 2) promoting the value of light-permeable docks, smaller piling sizes, and community docks to both salmon and landowners through direct mailings to lakeshore landowners or registered boat owners sent with property tax notice or boat registration tab renewal; and 3) offering financial incentives for community docks in terms of reduced permit fees, loan fees/percentage rates, taxes, and permitting time, in addition to construction cost savings. Similarly, the WRIA 8 Salmon Conservation Plan identified a future project (C302) to explore opportunities to reduce the number of docks by working with private property owners.

7.5 Priority 5 – Restore Mouths of Tributary Streams, Reduce Sediment and Pollutant Delivery to Lake Washington

Although most of the watercourses and their basins located within the City are outside of shoreline jurisdiction, their impacts to shoreline areas should not be discounted. Several of these streams have the potential to provide fish and wildlife habitat. For juvenile chinook, once they enter Lake Washington, they often congregate near the mouths of tributary streams, and prefer low gradient, shallow-water habitats with small substrates (Tabor and Piaskowski 2002; Tabor et al. 2004; Tabor et al. 2006). Chinook fry entering Lake Washington early in the emigration period (February and March) are still relatively small, typically do not disperse far from the mouth of their natal stream, and are largely dependent upon shallow-water habitats in the littoral zone with overhanging
vegetation and complex cover (Tabor and Piaskowski 2002; Tabor et al 2004). The mouths of creeks entering Lake Washington (whether they support salmon spawning or not), as well as undeveloped lakeshore riparian habitats associated with these confluence areas, attract juvenile chinook salmon and provide important rearing habitat during this critical life stage (Tabor et al. 2004; Tabor et al. 2006).

Later in the emigration period (May and June), most chinook juveniles have grown to fingerling size and begin utilizing limnetic areas of the Lake more heavily (Koehler et al. 2006). 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 around all of Mercer Island, some salmon fry from the Cedar River are known to depend on nearshore habitats along the southern shore of Mercer Island. Later in the spring (May and June), however, juvenile chinook are known to be well distributed throughout both limnetic and littoral areas of Lake Washington, and certainly utilize the shoreline habitats along Mercer Island.

Action Start List Recommendations in support of Priority 5 include: 1) addressing water quality and high flow impacts from creeks and shoreline development through NPDES Phase 1 and Phase 2 permit updates, consistent with Washington Department of Ecology’s 2001 Stormwater Management Manual, including low impact development techniques, on-site stormwater detention for new and redeveloped projects, and control of point sources that discharge directly into the lakes; and 2) Protecting and restoring water quality and other ecological functions in tributaries to reduce effects of urbanization. This involves protecting and restoring forest cover, riparian buffers, wetlands, and creek mouths by revising and enforcing critical areas ordinances and Shoreline Master Programs, incentives, and flexible development tools.

7.6 Priority 6 –Improve Water Quality and Reduce Sediment and Pollutant Delivery

Although most of the City’s watercourses and their basins are located outside of shoreline jurisdiction, their impacts to shoreline areas should not be discounted. Several of these watercourses have the potential to provide fish habitat in their lower sections and wildlife habitat throughout. They are also a common receiving body for non-point source pollution, which in turn delivers those contaminants ultimately to Lake Washington. Mercer Island started a Water Quality Monitoring effort in 2001 with technical assistance from the King County Water and Land Resources Division that analyzes a variety of water quality factors affecting Lake Washington.

Many actions provided in the WRIA 8 Salmon Conservation Plan focus on addressing water quality and stormwater controls, including:

- Implement Phase 2 NPDES permit requirements
• Address stormwater impacts from transportation projects involving new or expanded roadways

• Encourage low impact development through regulations, incentives, education and training, and demonstration projects

• Improve Enforcement of Existing Land Use and Other Regulations

These recommendations emphasize the use of low impact development techniques, on-site stormwater detention for new and redeveloped projects, and control of point sources that discharge directly into surface waters. They involve protecting and restoring vegetative cover, riparian buffers, wetlands, and creek mouths by revising and enforcing critical areas ordinances and Shoreline Master Programs, incentives, and flexible development tools.

7.7 Priority 7 – Improve Riparian Vegetation, Reduce Impervious Coverage

Similar to the priority listed above to improve water quality and reduce sediment and pollutant delivery, improved riparian vegetation and reduction in impervious surfaces are emphasized throughout the WRIA 8 Salmon Conservation Plan. These factors correspond directly to the emphasis to increase use of Low Impact Development techniques. Actions which involve improvements to riparian vegetation and reductions in impervious surface coverage are likely to take place on both public and private development. The City’s Parks and Recreation Department is committed to providing improved shoreline landscapes by incorporating areas of native riparian vegetation. Private development should be encouraged to utilize low impact development techniques such as the planting of native trees and use of porous paving.

7.8 Priority 8 – Reduce Aquatic Non-Native Invasive Weeds

While not specifically listed in the WRIA 8 Salmon Conservation Plan, reduction of aquatic invasive weeds from Lake Washington, particularly Eurasian watermilfoil and white water lily, is of particular concern across many jurisdictions with Lake Washington shoreline. Not only are aquatic weeds a problem for boats and swimmers, but they also tend to reduce dissolved oxygen to lethal levels for fish, hampering foraging opportunities. Long-term control of aquatic non-native invasive plants in Lake Washington will be very difficult to achieve without coordinated inter-jurisdictional collaboration.

7.9 Priority 9 – Acquisition of Shoreline Property for Preservation, Restoration, or Enhancement Purposes

The City should explore opportunities to protect natural areas or other areas with high ecological value or restoration potential via property acquisition. Mechanisms to purchase property would likely include collaboration with other stakeholder groups
including representatives from local government, businesses and the general public in order to develop a prioritized list of actions. Properties throughout the more developed shoreline areas within the City may be available for acquisition both for preservation but also to act as a showcase for restoration potential.

7.10 Priority 10 – City Zoning, Regulatory, and Planning Policies

City Zoning, Regulatory, and Planning Policies are listed as being of lower priority in this case simply because they have been the subject of a thorough review and have recently been updated accordingly. Notably, the City’s Critical Areas Ordinance was updated (November 2005) consistent with the Best Available Science for critical areas, including those within the shoreline area. However, as noted in the WRIA Implementation Monitoring Report (WRIA 8 2008a), both Shoreline Master Programs and Critical Areas Ordinances are highly linked to the implementation of plan recommendations. For the time being, it is considered more important to capitalize on this Restoration Plan by focusing on implementing projects consistent with the updated SMP policies. Unimplemented or unused policies, by themselves, will not improve habitat. As time goes by, further review and potential updating of these policies may increase in priority. Policy-related items in this category as listed in previous sections include Comprehensive Plan Policies (Section 4.2), Critical Areas Regulations (Section 4.3), and Stormwater Planning (Section 4.4).

The City received its final NPDES Phase II permit in February 2007 from Ecology. The NPDES Phase II permit is required to cover the City’s stormwater discharges into regulated lakes and streams. Under the conditions of the permit, the City must protect and improve water quality through public education and outreach, detection and elimination of illicit non-stormwater discharges (e.g., spills, illegal dumping, wastewater), management and regulation of construction site runoff, management and regulation of runoff from new development and redevelopment, and pollution prevention and maintenance for municipal operations.

The City conducts all of the above at some level already, but significant additional effort may be needed to document activities and to alter or upgrade programs. The City has various programs to control stormwater pollution through maintenance of public facilities, inspection of private facilities, water quality treatment requirements for new development, source control work with businesses and residents, and spill control and response. Monitoring may be required as part of an illicit discharge detection and elimination program, for certain construction sites, or in waterbodies with a Total Maximum Daily Load (TMDL) Plan for particular pollutants. General water quality monitoring concerns include: a) stormwater quality; b) effectiveness of best management practices; and c) effectiveness of the stormwater management program.
8 REFERENCES

Anchor Environmental LLC. 2005. Draft Shoreline Habitat Inventory Memorandum

City of Mercer Island. 2007. City of Mercer Island Capital Improvement Program.


9 LIST OF ACRONYMS AND ABBREVIATIONS

AASF.................... Adopt-A-Stream Foundation

cfs..................... cubic feet per second

CIP ....................... Capital Investment Program

GMA........................ Growth Management Act

NGPA .................... Native Growth Protection Area

NGPE ..................... Native Growth Protection Easement

OHWM.................... ordinary high water mark

WDFW ..................... Washington Department of Fish and Wildlife
APPENDIX A

CITY OF MERCER ISLAND
RESOLUTION 1347
RATIFYING THE WRIA 8 CHINOOK SALMON CONSERVATION PLAN
CITY OF MERCER ISLAND

RESOLUTION NO. 1347

A RESOLUTION RATIFYING THE WATER RESOURCE INVENTORY
AREA (WRIA) 8 CHINOOK SALMON CONSERVATION PLAN

WHEREAS, in March 1999, the National Oceanic and Atmospheric Administration (NOAA) Fisheries listed the Puget Sound Chinook salmon evolutionary significant unit as a threatened species under the Endangered Species Act (ESA); and

WHEREAS, in November 1999, the United States Fish and Wildlife Service (USFWS) listed the Puget Sound bull trout distinct population segment as a threatened species under the ESA; and

WHEREAS, under the ESA, it is illegal to take a listed species, and the ESA defines the term “take” to include actions that could harm listed species or their habitat; and

WHEREAS, under the ESA, Section 4(f), NOAA Fisheries (for Chinook salmon) and USFWS (for bull trout) are required to develop and implement recovery plans to address the recovery of the species; and

WHEREAS, an essential ingredient for the development and implementation of an effective recovery program is coordination and cooperation among federal, state, and local agencies, tribes, businesses, researchers, non-governmental organizations, landowners, citizens, and other stakeholders as required; and

WHEREAS, Shared Strategy for Puget Sound, a regional non-profit organization, has assumed a lead role in the Puget Sound response to developing a recovery plan for submittal to NOAA Fisheries and the USFWS; and

WHEREAS, local jurisdictions have authority over some habitat-based aspects of Chinook survival through land use and other policies and programs; and the state and tribes, who are the legal co-managers of the fishery resource, are responsible for addressing harvest and hatchery management in WRIA 8; and

WHEREAS, in WRIA 8, habitat actions to significantly increase Chinook productivity trends will be helpful, in conjunction with other recovery efforts, to avoid extinction in the near term and restore WRIA 8 Chinook to viability in the long term; and

WHEREAS, Mercer Island supports cooperation at the WRIA level to set common priorities for actions among partners, efficient use of resources and investments, and distribution of responsibility for actions and expenditures;

WHEREAS, 27 local governments in WRIA 8 jointly funded development of The WRIA 8 Steering Committee Proposed Lake Washington/Cedar/Sammanish Watershed Chinook
Salmon Conservation Plan (the Plan), published February 25, 2005 following public input and review; and

WHEREAS, while the Plan recognizes that salmon recovery is a long-term effort, it focuses on the next 10 years and includes a scientific framework, a start-list of priority actions and comprehensive action lists, an adaptive management approach, and a funding strategy; and

WHEREAS, Mercer Island has consistently implemented habitat restoration and protection projects, and addressed salmon habitat through its land use and public outreach policies and programs over the past five years; and

WHEREAS, it is important to provide jurisdictions, the private sector and the public with certainty and predictability regarding the course of salmon recovery actions that the region will be taking in the Lake Washington/Cedar/Sammamish Watershed, including the Puget Sound nearshore; and

WHEREAS, if insufficient action is taken at the local and regional level, it is possible that the federal government could list Puget Sound Chinook salmon as an endangered species, thereby decreasing local flexibility.

NOW, THEREFORE, BE IT RESOLVED BY THE MERCER ISLAND CITY COUNCIL AS FOLLOWS:

Section A: The Mercer Island City Council hereby ratifies The WRIA 8 Steering Committee Proposed Lake Washington/Cedar/Sammamish Watershed Chinook Salmon Conservation Plan, dated February 25, 2005, a copy of which is on file with the Mercer Island City Clerk (the Plan). Ratification is intended to convey the city’s approval of the Plan.

Section B: Mercer Island recognizes that negotiation of commitments and assurances/conditions with appropriate federal and state agencies will be an iterative process. Full implementation of this Plan is dependent on the following:

1. NOAA Fisheries will adopt the Plan, as an operative element of its ESA Section 4(f) recovery plan for Puget Sound Chinook salmon.

2. NOAA Fisheries and USFWS will:
   a) take no direct enforcement actions against Mercer Island under the ESA for implementation of actions recommended in or consistent with the Plan,
   b) endorse the Plan and its actions, and defend Mercer Island against legal challenges by third parties, and
   c) reduce the regulatory burden for Mercer Island activities recommended in or consistent with the Plan that require an ESA Section 7 consultation.
3. Federal and state governments will:
   a) provide funding and other monetary incentives to support Plan actions and
      monitoring activities,
   b) streamline permitting for projects implemented primarily to restore salmonid habitat
      or where the actions are mitigation that further Plan implementation,
   c) offer programmatic permitting for local jurisdiction actions that are consistent with
      the Plan,
   d) accept the science that is the foundation of the Plan and support the monitoring and
      evaluation framework,
   e) incorporate actions and guidance from the Plan in future federal and state
      transportation and infrastructure planning and improvement projects, and
   f) direct mitigation resources toward Plan priorities.

Section C: This resolution does not obligate the Mercer Island City Council to future
appropriations beyond current authority set forth in its 2005-2006 biennial budget. All future
appropriations are subject to review and approval by the then seated City Council.

ADOPTED BY THE CITY COUNCIL OF THE CITY OF MERCER ISLAND,
WASHINGTON AT ITS REGULAR MEETING ON THE 6TH DAY OF SEPTEMBER 2005.

Bryan Cairns, Deputy Mayor

ATTEST:

Allison Spietz, City Clerk
APPENDIX B

PROPOSED OUTREACH AND EDUCATION ACTIONS
### Draft Proposed Outreach & Education Actions for the Cedar Population (Tier 1 and 2 Subareas)
(by WRIA 8 Public Outreach Committee)

<table>
<thead>
<tr>
<th>Proj #</th>
<th>Habitat Condition</th>
<th>Desired Outcome</th>
<th>Target Audience</th>
<th>Proposed Action</th>
<th>Priority</th>
<th>Proven Track Record/Model</th>
<th>Level of Financial Commit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C701</td>
<td>Riparian vegetation displaced by lawn, invasives, or exotics; water quality compromised by garden chemicals, metals, sediment; higher water use at times when flows lowest.</td>
<td>Protect &amp; restore riparian vegetation to provide sources of large woody debris/pools/riffles; protect &amp; restore water quality, maintain instream flows</td>
<td>Shoreline property owners and general public</td>
<td>Update and distribute streamside living materials such as Streamside Savvy, Salmon Friendly Gardening Practices, or Going Native. Distribute to all shoreline property owners and make available at City Hall, libraries, and retail establishments such as home &amp; garden centers.</td>
<td>High</td>
<td>Ongoing or have been distributed in past.</td>
<td>Low-Medium</td>
</tr>
<tr>
<td>C702</td>
<td>Riparian vegetation displaced by lawn, invasives, or exotics; water quality compromised by landscape practices; higher water use at times when flows lowest.</td>
<td>Protect &amp; restore riparian vegetation to provide sources of large woody debris/pools/riffles; protect &amp; restore water quality, maintain instream flows</td>
<td>Shoreline property owners</td>
<td>Offer shoreline property owners a workshop in streamside living. Include tips on landscape design/maintenance appropriate for riverside properties and shoreline stabilization (alternatives to vertical wall bulkhead design). Feature designers and contractors who have both experience and recognition in salmon friendly design.</td>
<td>High</td>
<td>Seattle Public Utilities and Snohomish County Streamside Stewardship Courses, Issaquah’s Creekside Living workshops</td>
<td>Low</td>
</tr>
<tr>
<td>C703</td>
<td>Smaller parcels lost to development or possible habitat degradation without financial incentives to conserve that are offered to owners of larger parcels</td>
<td>Protect good salmon habitat that could provide source of shelter, pools, riffles, food</td>
<td>Shoreline property owners</td>
<td>Expand use tax credit incentives to encourage protection of smaller properties not currently eligible for existing programs.</td>
<td>High</td>
<td>Public Benefits Rating System, Open Space Current Use Tax (CUT)</td>
<td>Variable (Low budget)</td>
</tr>
<tr>
<td>C704</td>
<td>Channel confinement from bulkheads, levees, and armoring; loss of riparian vegetation</td>
<td>Soften shorelines, restore floodplain connectivity and channel complexity</td>
<td>Shoreline property owners</td>
<td>Reduce permit fees for shoreline stabilization if design is salmon friendly (employing alternatives to dikes, levees, revetments, and vertical wall bulkheads). Also reduce permit fees (where applicable) for streamside restoration and removal &amp; replacement of non-native vegetation.</td>
<td>High</td>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Habitats Condition Desired Outcome Target</td>
<td>Audience</td>
<td>Proposed Action</td>
<td>Priority</td>
<td></td>
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<tr>
<td>Riparian vegetation displaced by lawn, invasives, or exotics; water quality compromised by garden chemicals, metals, sediment; Higher water use at times when flows lowest.</td>
<td>Landscape Contractors</td>
<td>Offer educational opportunities to landscape designers/contractors on riparian design/naturescaping, invasive species, efficient watering techniques, and use of compost to build healthy soils, control erosion and reduce need for supplemental irrigation. Augment training to accommodate English as Second Language learners.</td>
<td>High</td>
<td>Washington Assoc. of Landscape Professionals (WALP)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Reduced forest cover; increased impervious areas/lack of infiltration/ground water recharge</td>
<td>Design &amp; Building Professionals</td>
<td>Protect forest cover, reduce impervious surface area, increase infiltration back into soil and ground water recharge, decrease water use.</td>
<td>High</td>
<td>City of Seattle Business &amp; Industry News, King County Green Building, LEEDs, Construction Works and other Solid Waste Division outreach programs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduced forest cover; increased impervious areas/lack of infiltration/ground water recharge</td>
<td>Design &amp; Building Professionals</td>
<td>Control stormwater runoff to more closely mimic natural hydrology, reduce impervious areas, increase infiltration, protect forest cover.</td>
<td>High</td>
<td>AIA, ASLA, Sunset Magazine, and Seattle Times Garden awards, King County EnviroStars</td>
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</tbody>
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**C705**

*Ordinance No. 13C-12*
<table>
<thead>
<tr>
<th>Proj #</th>
<th>Habitat Condition</th>
<th>Desired Outcome</th>
<th>Target Audience</th>
<th>Proposed Action</th>
<th>Priority</th>
<th>Proven Track Record/ Model</th>
<th>Level of Financial Commit.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C708</td>
<td>Insufficient flow</td>
<td>Maintain instream flows</td>
<td>High-end water users, general public</td>
<td>Extend availability of water conservation incentive programs (such as rebates for efficient toilets, appliances, free indoor conservation kits, or free landscape irrigation audits) to decrease household and commercial water consumption.</td>
<td>High</td>
<td>Smart &amp; Healthy Landscapes, Water Cents</td>
<td>Low</td>
</tr>
<tr>
<td>C709</td>
<td>Water quality compromised by garden chemicals, metals, sediment. Higher water use at times when flows lowest.</td>
<td>Protect water quality from degradation by pesticides and soil erosion, maintain instream flows by reducing water used for irrigation, increase organic content in soils to increase water holding capacity</td>
<td>General public</td>
<td>Target Natural Yardcare Neighborhoods Program to include more communities in the Cedar sub-basin. Expand curricula to offer more landscaping guidelines specific to shoreline residences.</td>
<td>High</td>
<td>Ongoing program</td>
<td>Medium - High</td>
</tr>
<tr>
<td>C710</td>
<td>Water quality degraded by cleaners, oils, grit, and paint; stream flows reduced by excessive water use</td>
<td>Protect and restore water quality and maintain flows</td>
<td>General Public</td>
<td>Coordinate with local business community to encourage the use of commercial car washes. (Water quality and salmon conservation could provide a new marketing angle; car dealerships could offer car wash coupons as bonus with car purchase.). Require that car kits be used for all parking lot fund raiser car washes, or offer carwash coupons or as more eco-friendly alternative funding source.</td>
<td>High</td>
<td>Puget Sound CarWash Association Coupon Program.</td>
<td>Variable - Low</td>
</tr>
<tr>
<td>C711</td>
<td>All conditions listed above Water quality degraded by toxics and garden chemicals; channel confinement; loss of riparian buffer; use of large woody debris, pools, riffles, reduced channel complexity; riparian vegetation displaced by lawn; high water use when flows lowest.</td>
<td>Increase public watershed literacy awareness of effects on water quality and habitat conditions.</td>
<td>General Public, but in particular, residents of Cedar sub-basin who may not be aware of existence of salmon right within urban area</td>
<td>Support and encourage efforts of Cedar River Naturalist Program to promote voluntary stewardship by focusing on education, monitoring, and maintenance of restoration sites (e.g. Cavanaugh Pond). Continue and expand messaging about how everyday personal actions affect salmon, the Cedar River, and entire watershed.</td>
<td>High</td>
<td>Ongoing program with successful track record since 1998</td>
<td>Low-Medium</td>
</tr>
<tr>
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<tr>
<td>C712</td>
<td>Water quality degraded by toxics</td>
<td>Keep toxics out of water by providing safer alternative</td>
<td>General Public</td>
<td>Increase outreach about availability and locations of Hazardous Waste Collection sites and special collection events.</td>
<td>High</td>
<td>King County Local Hazardous Waste Management Program</td>
<td>Low (cheaper than dealing with illegal dumping)</td>
</tr>
<tr>
<td>C713</td>
<td>Water quality degraded by toxics, pesticides, metals, increased nutrient loads, sediments, loss of riparian buffer</td>
<td>Protect and restore water quality</td>
<td>General Public</td>
<td>Publicize emergency call numbers for public to report water quality and quantity problems, non-permitted vegetation clearing, non-permitted in-stream grading, and wood removal incidents.</td>
<td>High</td>
<td>Seattle Public Utilities Surface Water Pollution Prevention Hotline and website</td>
<td>Low</td>
</tr>
<tr>
<td>C714</td>
<td>Riparian vegetation displaced by lawn, invasives, and exotics, providing little food value, no source of LWD, or soil stability (sedimentation of gravel beds). Increased water use when flows lowest; increased use of pesticides on less resistant exotics</td>
<td>Restore native riparian vegetation to provide cover and terrestrial food source, reduce soil erosion and sedimentation in gravel beds, protect and restore water quality, maintain instream flows</td>
<td>Shoreline Property Owners and Community</td>
<td>Increase number of native plant salvages. Integrate these salvage opportunities into naturscaping classes; class participants can take home native plants for immediate use both within and surrounding sensitive areas.</td>
<td>High</td>
<td>King and Snohomish County Native Plant Salvage Programs, WSU Cooperative Extension Native Plant Salvage Project partnership with Puget Sound Action Team, Thruston &amp; Mason Counties.</td>
<td>Low</td>
</tr>
<tr>
<td>C715</td>
<td>Channel confinement and loss of channel complexity from bulkheads, levees, and armoring; loss of riparian vegetation</td>
<td>Reduce channel confinement, restore riparian vegetation, and floodplain connectivity and channel complexity</td>
<td>Shoreline property owners, general Public</td>
<td>Demonstration Project. Locate property owner in publicly accessible (or viewable) area willing to remove bulkhead, levee, or stream bank armoring and replace it with more ecologically friendly design. Publicize efforts through various means. Demonstration project should contain elements that can be done by average shoreline property owner. Provide information on costs and advantages of alternate treatments.</td>
<td>High – Medium-variable</td>
<td></td>
<td>Variable</td>
</tr>
<tr>
<td>C716</td>
<td>Lack of large woody debris</td>
<td>Overcome public fear and resistance to providing and</td>
<td>Shoreline property owners,</td>
<td>Increase public awareness about the value of large woody debris and native vegetation for flood protection, salmon habitat, and healthy streams. Convey through</td>
<td>High-Medium</td>
<td>Existing King County and US Forest</td>
<td>Low</td>
</tr>
<tr>
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<tr>
<td>C717</td>
<td>All conditions listed above.</td>
<td>Reduce channel confinement, restore riparian vegetation, and floodplain connectivity and channel complexity</td>
<td>Shoreline property owners</td>
<td>Explore possibility of adding a disclosure to Real Estate Sales Agreement describing shorelines as sensitive areas, subject to rules and regulations of City and County. Look to model set by King County.</td>
<td>High-Medium</td>
<td>Yes, King County Local Hazardous Waste Management EnviroStars program</td>
<td>Medium</td>
</tr>
<tr>
<td>C718</td>
<td>Water quality compromised by toxics, pesticides, metal fines, and nutrient overloads</td>
<td>Protect and restore water quality.</td>
<td>General Public</td>
<td>Work with auto parts retailers and gas stations to increase potential for collection of used motor oil/transmission fluids. Distribute Water Quality poster series which depicts impacts of everyday practices: washing car, driving car without maintenance, leaving pet wastes unattended, and improperly using lawn chemicals. Promote</td>
<td>High-Medium</td>
<td></td>
<td>Medium</td>
</tr>
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<tr>
<td>C719</td>
<td>Channel confinement reduced channel complexity, loss of riparian vegetation</td>
<td>Increase public watershed literacy awareness of effects on water quality and habitat conditions,</td>
<td>Community</td>
<td>Increase citizen involvement in voluntary stewardship programs, focusing on restoration projects to meet the needs of the conservation plan through restoration, education, monitoring and restoration site maintenance</td>
<td>High – Medium</td>
<td>Various: Cedar River Naturalists, Sammamish ReLeaf, Stream Team; Water Tenders</td>
<td>Medium</td>
</tr>
<tr>
<td>C720</td>
<td>Water quality degraded by sediment, diminished ground water recharge, flashiness of floods and resultant bed scour</td>
<td>Protect and restore forest cover, increase infiltration, decrease intensity of flood conditions, protect water quality from sediment</td>
<td>General public</td>
<td>Increase outreach efforts about the benefits of trees and basin-wide forest coverage to protect water quality. Clarify issues about hazard trees. Offer seedlings (perhaps provided by a timber company) to replant after potentially hazardous trees are removed. Enlist the help of nurseries/home &amp; garden centers on this education campaign. (Potential new Fathers’ Day gift idea: Buy and plant a tree each year for a dad who loves salmon).</td>
<td>High in rural areas; Medium in urban/suburban areas.</td>
<td>Yes, Sammamish ReLeaf; Mountains-to-Sound Greenway; City tree ordinances.</td>
<td>Variable - Medium</td>
</tr>
<tr>
<td>C721</td>
<td>All conditions listed.</td>
<td>Protect forest cover, wetlands, headwaters, critical salmon habitat; increase public support for land acquisition and restoration projects, as well as landuse policies.</td>
<td>Shoreline property owners, general public</td>
<td>Identify and encourage shoreline neighborhood and community stewardship associations to foster the ethic of voluntary stewardship. Use these groups to build a bridge between property owners, agencies, and locals governments. Promote watershed health through grassroots messaging. Increased potential for media coverage when efforts initiated at community level.</td>
<td>Medium</td>
<td>Friends of Rock Creek Valley, Friends of Cedar River Watershed, Cedar River Council, Lake Forest Park Stewardship Foundation</td>
<td>Low</td>
</tr>
<tr>
<td>C722</td>
<td>Loss of forest cover, organic content in soils, increase in impervious areas and increased run-off, degraded water quality flashiness during flood conditions.</td>
<td>Protect forest cover, reduce impervious area and runoff, increase infiltration, protect and restore water quality, maintain instream flows</td>
<td>Design/Build Industry</td>
<td>Create a campaign that tracks demand among community residents for purchasing green homes and remodeling with green building strategies.</td>
<td>Medium</td>
<td>Green Car Program</td>
<td>Low</td>
</tr>
<tr>
<td>C723</td>
<td>Degraded water</td>
<td>Cultivate ethic of Youth</td>
<td>Link education and community service stewardship</td>
<td></td>
<td>Medium</td>
<td>Environmental</td>
<td>Low</td>
</tr>
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<td></td>
<td>quality, instream flows, habitat quality</td>
<td>environmental stewardship; increase watershed awareness and links between manmade habitat and environmental health.</td>
<td></td>
<td>projects. Expand to community outreach to community/technical colleges &amp; universities.</td>
<td></td>
<td>Portal Seattle, Mercer Slough Interns, N. Shore Utility Tour, Water Tenders.</td>
<td></td>
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<tr>
<td>C724</td>
<td>Riparian vegetation displaced by lawn, invasives, or exotics, providing little food value, source of large woody debris, or soil stability. Water quality compromised by garden chemicals, metals, sediment. Higher water use at times when flows lowest.</td>
<td>Replace lawn and other lower ecological value plantings with riparian buffers and native plants</td>
<td>General public</td>
<td>Encourage neighborhood garden tours of salmon friendly gardens. Help residents visualize alternatives to traditional (and often less eco-friendly) landscape treatments. Offer neighbors assistance with publicity, signage, and volunteer docents. Coordinate with neighborhood garden clubs.</td>
<td>Medium</td>
<td>Existing neighborhood garden tours. Volunteer docents by King County Master Recycler Composters and WSU Master Gardeners.</td>
<td>Low</td>
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<tr>
<td>C725</td>
<td>All conditions discussed above.</td>
<td>Increase awareness about effects of habitat on salmon and watershed health; increase support for land acquisition and restoration efforts as well as landuse policies; inspire shoreline property owners to make changes on their own property.</td>
<td>General public, but in particular Shoreline property owners</td>
<td>Create local informational TV spots that could run on the government cable channels. Focus on those habitat conditions threatening salmon that are affected by our daily personal practices, landscape design and management practices. Showcase good designs to provide models to emulate.</td>
<td>Medium – Low</td>
<td>Salmon Information TV, C-TV,</td>
<td>Variable</td>
</tr>
<tr>
<td>C726</td>
<td>All conditions discussed above.</td>
<td>Encourage Design/Build industry professionals to offer more salmon friendly/eco-friendly</td>
<td>Design &amp; Building Professionals</td>
<td>Use recognition as a means to encourage more salmon sustainable designs and construction. Coordinate with professional association awards in addition to popular magazine merit awards. Continue to recognize businesses that carry out procedures or use products</td>
<td>Medium – Low</td>
<td>American Institute of Architects, American Society of</td>
<td>Low</td>
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<tr>
<td>C727</td>
<td>All conditions discussed above</td>
<td>Increase watershed literacy and understanding of effects of habitat on salmon</td>
<td>Business Community and General Public</td>
<td>Coordinate with businesses along Cedar that can help with outreach goals. For example, Ivar’s Seafoods could promote key messages about salmon conservation on their menus or through game cards. This seafood chain also has other restaurants located within WRIA 8 so it could be cost effective for them to do such a promotion.</td>
<td>Medium</td>
<td>Landscape Architects, Sunset Magazine, and Seattle Times Home and Garden awards, King County Enviro. Stars.</td>
<td>Low</td>
</tr>
<tr>
<td>C728</td>
<td>Water quality degraded by toxics and metal fines.</td>
<td>Reinforce to students and the community the relationship between what goes down storm drain and watershed health via an affordable and easily implemented program.</td>
<td>General Public</td>
<td>Expand storm-drain stenciling program locally and basin-wide. Track locations and dates in a Cedar Basin database.</td>
<td>Medium - Low</td>
<td>Yes</td>
<td>Low</td>
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<tr>
<td>C729</td>
<td>Channel confinement, loss of riparian buffer; sources of large woody debris, pools, riffles; reduced channel complexity,</td>
<td>Inspire shoreline property owners to make changes on their own property by providing good examples; increase public support for land acquisition and restoration efforts as well as landuse policies.</td>
<td>Shoreline property owners and general public</td>
<td>Use government cable channels to follow progress of the site specific restoration projects. Use of video to document projects before, during, and after restoration. Distribute resulting programs to libraries, schools, and communities groups.</td>
<td>Low</td>
<td>Salmon Information TV</td>
<td>Variable</td>
</tr>
<tr>
<td>C730</td>
<td>All conditions discussed above.</td>
<td>Improve watershed awareness and understanding</td>
<td>Youth</td>
<td>Focus environmental/science curricula on local watershed issues, with particular emphasis on key</td>
<td>Low-Future</td>
<td>Yes</td>
<td>Medium</td>
</tr>
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<td>Ordinance No. 13C-12</td>
<td>possibly prevent future habitat degradation by instilling a better understanding of interrelationship between habitat, daily actions, and watershed health.</td>
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<td>factors limiting the Cedar Chinook population.</td>
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<tr>
<td>C729</td>
<td>Increase awareness that the lakeshore is also a nursery for juvenile salmon. Make &quot;home improvements&quot; that can benefit both property owner and salmon, [people, pets, and planet]</td>
<td>Lakeshore property owners</td>
<td>High</td>
<td>Lakeside Living Workshop Series; King County Lake Stewardship Program</td>
<td>Variable</td>
<td></td>
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<tr>
<td>C730</td>
<td>Reduce conditions favored by predator species; protect &amp; restore water quality.</td>
<td>Lakeshore property owners</td>
<td>High</td>
<td>WRIA 8, KCD Lakeside Living, Property Owner Workshops; Seattle Public Utilities; Snohomish County Creek Stewardship Program, City of Issaquah's Creekside Living Program, Natural Yard Care Neighborhoods</td>
<td>High</td>
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**Draft Proposed Outreach & Education Actions for Lake Washington**

(by WRIA 8 Public Outreach Committee)

**C729**
Shoreline hardening, riparian vegetation displaced by lawn, exotics with low ecological value, overwater structures creating sharp light contrast, water quality degraded by effects of landscape practices

**C730**
Shoreline hardening, riparian vegetation displaced by lawn, exotics with low ecological value, overwater structures creating sharp light contrast, water quality degraded by effects of landscape practices
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<tr>
<td>C731</td>
<td>Forested parcels threatened by development, (even though difficult to build on); creek mouths degraded or unrecognizable (culverted); riparian vegetation replaced by invasives infested along shoreline</td>
<td>Protect and/or restore forest land, critical areas such as wetlands and shallow water rearing habitat. Promote watershed health through grassroots messaging.</td>
<td>Community, but especially lakeshore property owners.</td>
<td>Identify and encourage shoreline neighborhood and community stewardship associations. Use to foster the ethic of voluntary stewardship, set examples for other neighbors to follow, enlist community support to acquire and restore habitat, and to build a bridge between property owners, agencies, and local governments. Increase potential for media coverage when efforts initiated at community level.</td>
<td>High</td>
<td>Lake Forest Park Stewardship Foundation, Save Lake Sammamish, Denny Creek Neighborhood Association</td>
<td>Low</td>
</tr>
<tr>
<td>C732</td>
<td>Riparian vegetation displaced by lawn, invasives, or exotics; water quality compromised by garden chemicals, metals, sediment; elevated water temperatures due to increased water use at times when flows lowest.</td>
<td>Protect and improve rearing and migratory habitat; protect and restore water quality</td>
<td>Lakeshore property owners, general public</td>
<td>Update where necessary salmon-friendly educational materials such as <em>Salmon Friendly Gardening Practices, Going Native, Watershed Waltz and Sammamish Swing</em> booklets. Print and distribute to the following prioritized audiences: 1) lakeshore property owners 2) Public places such as libraries, city halls, community centers and where permitted, at home improvement centers and other major retail establishments.</td>
<td>Medium</td>
<td>Low - Medium</td>
<td>Yes</td>
</tr>
<tr>
<td>C733</td>
<td>Riparian vegetation displaced by lawn, invasives, or exotics; water quality compromised by garden chemicals, metals, sediment; elevated water temperatures due to increased water use at times when flows lowest.</td>
<td>Protect &amp; restore shoreline buffer plantings to provide source of food &amp; shelter; protect &amp; restore water quality, maintain baseflows of feeder streams in order to provide source of cooler water</td>
<td>Lakeshore property owners</td>
<td>Modify more for “lakeshore living” the existing “Streamside Living Welcome Wagon” program in which residents welcome new homeowners to the neighborhood and provide information concerning “salmon friendly” yard care, lakeshore planting tips, water-wise gardening.</td>
<td>Medium</td>
<td>WaterTenders Streamside Living Welcome Wagon</td>
<td>Low - Medium</td>
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<tr>
<td>C734</td>
<td>Solid overwater surfaces that create sharp light contrast and dark shadows,</td>
<td>Reduce severity of predation on juveniles</td>
<td>Lakeshore property owners</td>
<td>Explain about mutual value of mesh docks, smaller piling sizes, and community docks to salmon and property owners: Reduced predation for fish; reduced maintenance for homeowners, opportunity to watch small</td>
<td>High</td>
<td>Medium</td>
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<td>C735</td>
<td>conditions favored by predators.</td>
<td>Reduce severity of predation on juveniles by reducing number of docks.</td>
<td>Lakeshore property owners</td>
<td>fish swimming under the dock, and architectural interest provided by new salmon-friendly elevated dock bridges. Outreach could be carried out, for example, by creating a boat owner education campaign. Mailings could be sent with boat registration tab renewal or with property tax notice for shoreline property owners; by literature at marine, sporting goods and hardware stores, at boat shows; and through workshops to homeowners and marine construction industry. Coordinate outreach through appropriate licensing agencies.</td>
<td>High</td>
<td>Pro Bono advertising campaign development – The Coalition for Drug Free America ad campaign.</td>
<td>Variable, but low able to get Pro Bono assistance</td>
</tr>
<tr>
<td>C736</td>
<td>Sharp light contrast and dark hiding spots created by overwater structures, conditions favored by predators</td>
<td>Create sandy, shallow water habitat needed by juveniles.</td>
<td>Lakeshore property owners</td>
<td>Offer financial incentives for community docks in terms of reduced: permit fees, loan fees/percentage rates, taxes and permitting time, in addition to reduced construction costs.</td>
<td>High</td>
<td>Pro Bono advertising campaign development – The Coalition for Drug Free America ad campaign.</td>
<td>Low</td>
</tr>
<tr>
<td>C737</td>
<td>Steep shoreline gradient with coarse aggregate caused by wave action on vertical wall bulkheads</td>
<td>Create sandy, shallow water habitat needed by juveniles.</td>
<td>Lakeshore property owners</td>
<td>Utilize niche marketing to promote a “Build a Beach” campaign. Clarify how hardened shorelines prevent the development of shallow, sandy beaches and how alternative treatments can provide these amenities. Of benefit to salmon and to homeowners desiring more easily accessible shallow beach and aesthetics of a cove. Work with media (including design and lifestyle magazines) and real estate community (articles in real estate sections of papers) as well as construction, and design industry professionals.</td>
<td>High</td>
<td>Pro Bono advertising campaign development – The Coalition for Drug Free America ad campaign.</td>
<td>Variable, but low able to get Pro Bono assistance</td>
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<td>Lack of shelter provided by large and small woody debris due to lack of shoreline vegetation; steep dropoffs from shoreline hardening</td>
<td>Reduce conditions favored by predator species.; increase shoreline buffer vegetation and sources for large and small woody debris</td>
<td>Lakeshore property owners</td>
<td>Alternative marketing campaign: work with advertising industry and media. Do a play on “Child Haven” promotion. <em>Fry Haven</em>? Contrast picture of a sandy shallow shoreline containing woody debris hiding Chinook juveniles with that of a deep gravelly shoreline with evil looking predator species lurking, gobbling up young Chinook. [A “Chinook need safe places too” idea]. Possibly graphics in style of <em>Finding Nemo.</em> Create a marketing niche with landscape related industries to inform property owners about feeding requirements of out-migrating salmon off their beach. Validate need for native vegetation along the shoreline in</td>
<td>High</td>
<td>Various Bert the Salmon Ad campaigns</td>
<td>Low</td>
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<td>Lack of appropriate shoreline vegetation, shoreline hardening by vertical wall</td>
<td>Reduce conditions favored by predator species by “softening” shoreline;</td>
<td>Lakeshore property owners</td>
<td>Demonstration Project. Locate property owner in publicly accessible (or viewable) area willing to remove bulkhead, or shoreline armoring and replace it with more ecologically friendly design. Similarly, renovate existing dock with more salmon-friendly design. Publicize efforts through various means. Demonstration project should contain elements that can be done by average shoreline property owner. Provide information on costs and advantages of alternate treatments.</td>
<td>Medium – High</td>
<td>Redmond River Walk, Juanita Beach, Classic Nursery, Lark Forest Park Stewardship projects</td>
<td>Medium</td>
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<td>bulkheads and rip rap walls; docks that create stark light contrast and hiding spots for predators</td>
<td>increase shoreline buffer vegetation and sources for large and small woody debris, replace the many docks with more salmon friendly designs</td>
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<tr>
<td>C738</td>
<td>Coarse substrate, steep slope, dark hiding spots for predator species caused by</td>
<td>Reduce conditions favored by predator species; increase shoreline buffer vegetation and sources for large and small woody debris</td>
<td>Lakeshore property owners,</td>
<td>Document video progress on a range of restoration projects from planning to post-construction. Air on government cable channels, in shoreline property owner classes and for libraries, schools, communities groups.</td>
<td>Medium</td>
<td>King County and People for Puget Sound</td>
<td>Variable</td>
</tr>
<tr>
<td></td>
<td>bulkheads and solid surface docks.</td>
<td></td>
<td>general public</td>
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<td>C739</td>
<td>Coarse substrate, steep slope, dark hiding spots for</td>
<td>Overcome resistance of shoreline property</td>
<td>Lakeshore property owners,</td>
<td>Combine recreation and education. Organize a Bulkhead Alternatives and Salmon Friendly Dock Design tour to see good examples of design on a residential scale.</td>
<td>Low</td>
<td>King County and People for Puget Sound</td>
<td>Variable</td>
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<td>C740</td>
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<td>C741</td>
<td>Shoreline hardening, riparian vegetation displaced by lawn, ivasives, or exotics</td>
<td>Protect and improve water quality; habitat quality - or - Protect &amp; restore riparian vegetation to provide terrestrial food source and shelter; protect &amp; restore water quality, maintain instream flows upstream to provide source of cooler water</td>
<td>Landscape Contractors</td>
<td>Offer professional workshops to landscape designers &amp; contractors on environmentally-friendly lakeshore landscaping. Include topics such as shoreline buffer function and design, native plant selection, installation techniques, use of compost to build healthy soils, and noxious weed control. Determine need for training for non-English speaking participants</td>
<td>Medium-High</td>
<td>Washington Assoc of Landscape Professionals (WALP) Trainings by King County Local Hazardous Waste Management Program</td>
<td>Low</td>
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<td>C742</td>
<td>Riparian vegetation displaced by lawn. Water quality compromised by garden chemicals, metals, sediment.</td>
<td>Increase shoreline planting; reduce lawn size to at least have buffer between lawn and shore.</td>
<td>Lakeshore property owners</td>
<td>Work with landscape, design, and real estate industries to sell benefit of “privacy” to homeowners. With restoration of shoreline buffer planting homeowners can increase privacy without sacrificing views. Promote idea of “framed views” as a more sophisticated landscape aesthetic.</td>
<td>Medium-High</td>
<td>1998 Lake Sammamish Shoreline Prop owners workshop Pilot Program</td>
<td>Low</td>
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<tr>
<td>C743</td>
<td>Lack of shoreline buffer vegetation, increased water use when levels lowest;</td>
<td>Increase native vegetation and source of shelter and food for fish;</td>
<td>Lakeshore property owners, Community</td>
<td>Increase number of native plant salvages where landowners can take plants back to their yards. Publicize opportunity to drop off unwanted native plants at various parks surrounding the lake.</td>
<td>Low – High</td>
<td>King County Native Plant Salvage Program</td>
<td>Low</td>
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<td>C744</td>
<td>Increased perceived need for pesticides</td>
<td>Reduce erosion and need for supplemental irrigation (once established)</td>
<td>Lakeshore property owners</td>
<td>Reduce permit fees (where applicable) for shoreline restoration, removal &amp; replacement of non-native vegetation</td>
<td>Low-Med Sammamish</td>
<td>Low</td>
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<td>C745</td>
<td>Lack of appropriate shoreline vegetation</td>
<td>Increase shoreline vegetation and reduce non-native vegetation &amp; spread of invasives</td>
<td>Lakeshore property owners</td>
<td>Reduce permit fees (where applicable) for shoreline restoration, removal &amp; replacement of non-native vegetation</td>
<td>Medium</td>
<td>Low</td>
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<td>C746</td>
<td>Water quality degraded by toxics, pesticides, increased nutrient loads, sediment from construction sites; loss of riparian vegetation</td>
<td>Protect and improve water quality</td>
<td>General Public</td>
<td>Publicize emergency call numbers for public to report water quality problems, water diversion from lake for irrigation, non-permitted vegetation clearing, or tree overspray (pesticide) related incidents.</td>
<td>High</td>
<td>King County Water &amp; Land Division, Seattle Public Utilities Hotlines</td>
<td>Low</td>
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<td>C747</td>
<td>Reduced forest and canopy cover; increased impervious areas, decreased infiltration; more flashiness of floods due to intensity of runoff</td>
<td>Protect and improve water quality; reduce quantity of water entering lake: during flood conditions can mix with sanitary sewer flows and enter lake.</td>
<td>General public, but property owners in particular</td>
<td>Increase outreach concerning the benefits of trees and basin-wide forest coverage to protect water quality. Include such actions as significant tree ordinance and information that links canopy cover to storm water issues. Provide clarification on hazardous tree issues. Offer seedlings to replant after hazard trees are removed. Coordinate with commercial nurseries to expand outreach about benefits of trees to salmon.</td>
<td>Medium-High</td>
<td>Sammamish ReLeaf; Mountains-to-Sound Greenway; City tree ordinances, King County Forestry Program</td>
<td>Low</td>
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<td>Elevated lake temperatures, lack of cool water sources from feeder streams, insufficient flows in feeder streams to provide source of cooler water, lack of ground water recharge, water</td>
<td>Protect forest cover, reduce paving and impervious areas, increase infiltration and conditions that mimic natural hydrology, protect water quality</td>
<td>Design, engineering, and construction industries</td>
<td>Provide education to architects, landscape architects, engineers, and developers on sustainable building/design practices. Work with professional associations to highlight building practices that maintain watershed health, importance of maintaining canopy cover and limiting impervious surfaces. Provide incentives to builders that demonstrate a use ecologically sensitive designs and/or techniques. Provide professional workshop and tours focusing on</td>
<td>Medium - High</td>
<td>WALP Trainings by King County Local Hazardous Waste Management Program. Stoneway</td>
<td>Variable</td>
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<td>C748</td>
<td>Reduced forest cover, increased impervious area, decreased infiltration and ground water recharge, water quality degraded by runoff</td>
<td>Protect and improve water quality and quantity to more closely mimic natural hydrology</td>
<td>Developers, Architects, Engineers Building Professionals</td>
<td>Use recognition as a means to encourage more salmon sustainable designs and construction. Coordinate with professional association awards, in addition to popular magazine merit awards. Continue to recognize businesses that carry out procedures or use products that protect watershed health. Promote through design competitions and media coverage the use of “rain gardens” and other low impact development practices that mimic natural hydrology. Combine a home &amp; garden tour or “Street of Dreams” type event featuring these landscape and engineering treatments.</td>
<td>Medium</td>
<td>Concrete Council for Sustainable Development outreach on pervious pavement. Port Blakely Communities, Issaquah partnerships, Built Green, Sustainable Seattle, LEEDS</td>
<td>Low</td>
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<td>C749</td>
<td>Water quality degraded by metals, toxins, pesticides, and nutrient overloads</td>
<td>Protect and improve water quality</td>
<td>General Public</td>
<td>Create a program that addresses impact of car maintenance and offers alternatives that help protect watershed health and water quality. More actively distribute – poster series developed by multi-jurisdictional Water Quality Consortium. Series depict water quality implications of everyday activities such as car washing, ignoring car maintenance, pet wastes. Work with auto parts retailers and gas stations to increase potential for collection of used motor oil/transmission fluids.</td>
<td>Medium</td>
<td>King County Local Hazardous Waste Mgmt Program Water Quality Consortium, Businesses for Clean Water</td>
<td>variable</td>
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<td>C750</td>
<td>Water Quality degraded by toxics and metal fines</td>
<td>Protect and restore water quality</td>
<td>General Public</td>
<td>Make outreach materials available to non-English speakers.</td>
<td>Medium</td>
<td>Commute Trip Reduction Programs</td>
<td>Low - Medium</td>
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<td>C751</td>
<td>Water Quality degraded by toxics and metal fines degraded by metals and toxins</td>
<td>Protect and restore water quality</td>
<td>General Public, schools/non-profits and Charity groups – and business that offer to host a carwash.</td>
<td>Coordinate with local business community to encourage the use of commercial car washes over washing at home on street or in parking lots. Encourage alternatives to charity cash washes via commercial car wash coupon books or extend car wash kits throughout entire watershed. Make requirement that all charity car washes use coupons or car wash storm drain kit. Distribute “alternative community fundraising idea” brochure to volunteer fundraisers.</td>
<td>Medium</td>
<td>Yes, various cities’ car wash kit programs. Puget Sound Carwash Association</td>
<td>Low</td>
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<td>C752</td>
<td>Water quality degraded by metals and toxins</td>
<td>Protect and restore water quality</td>
<td>Businesses, property management companies, homeowners associations.</td>
<td>Educate and support retail business and homeowner associations on stormwater best management practices specifically related to parking lot cleaning, storm drain maintenance, and boat cleaning.</td>
<td>Medium</td>
<td>Ongoing programs by various jurisdictions within WIRA, e.g. Issaquah, Redmond</td>
<td>Low</td>
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<td>C753</td>
<td>Reduced baseflows from streams that feed into lake and subsequent elevated water temperatures in lake</td>
<td>Protect and restore sources of cool water</td>
<td>High end water users and general public</td>
<td>Extend availability of water conservation incentive programs such as rebates for efficient toilets, appliances, soaker hoses, free indoor conservation kits, or free landscape irrigation audits to decrease household and commercial water consumption.</td>
<td>High</td>
<td>Smart &amp; Healthy Landscapes, Water Cents, and other utility incentive programs</td>
<td>Low</td>
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