

Synopsis of proposed City of Seattle Shoreline Master Program

Prepared for: The City of Seattle Urban Forestry Commission

Prepared by: John Small, Urban Ecologist, Seattle Urban Forestry Commission

## Disclosures:

*My Employer was contracted by the City of Seattle Department of Planning and Development to provide technical assistance on the preparation of the Shoreline Characterization Report and Shoreline Restoration Plan. I acted as the Project Manager for these services and benefited personally and professionally from my considerable role in the preparation of these documents. The Shoreline Characterization Report and Shoreline Restoration Plan are both part of the supporting documents included in the proposed Shoreline Master Plan update.*

*Comments and narrative herein were prepared by me alone, and do not constitute the perceptions, opinions or positions of the Seattle Urban Forestry Commission.*

## Background on Shoreline Management

The U.S. Congress recognized the importance of meeting the challenge of continued growth in the coastal zone by passing the Coastal Zone Management Act (CZMA) in 1972. The Act, administered by NOAA's Office of Ocean and Coastal Resource Management (OCRM), provides for management of the nation's coastal resources, including the Great Lakes, and balances economic development with environmental conservation ([link](#)).

Washington's Shoreline Management Act (SMA) was passed by the State Legislature in 1971 and adopted by voters in 1972. The overarching goal of the Act is "to prevent the inherent harm in an uncoordinated and piecemeal development of the state's shorelines." ([link](#)). The SMA provided a geographic expansion on the jurisdiction of the CZMA by including smaller waterbodies. In addition to all marine water the SMA jurisdiction extends to: streams and rivers with greater than 20 cubic feet per second mean annual flow; lakes 20 acres or larger; upland areas called shorelands that extend 200 feet landward from the edge of these waters; and the following areas when they are associated with one of the above: biological wetlands and river deltas; and some or all of the 100-year floodplain including all wetlands within the 100-year floodplain. ([link](#)).

In the City of Seattle the Jurisdiction of the Shoreline Master Program (SMP), which is mandated by the State SMA is being updated by the Department of Planning and Development (DPD). Seattle's Shoreline District includes the Duwamish River, the Ship Canal, Lake Union, Lake Washington, Green Lake, Puget Sound as well as wetlands and floodplains associated with those waterbodies, and all land within 200-ft of those water-bodies.

Seattle's SMA establishes three major policy goals that all SMPs are required to achieve:

- Preferred Shoreline Uses: The SMA establishes a preference for uses that are water-oriented and that are appropriate for the environmental context (such as port facilities, shoreline recreational uses, and water-dependent businesses). Single-family residences are also

identified as a priority use under the Act when developed in a manner consistent with protection of the natural environment

- Environmental Protection: The Act requires protections for shoreline natural resources, including “... the land and its vegetation and wildlife, and the water of the state and their aquatic life ...” to ensure no net loss of ecological function.
- Public Access: The Act promotes public access to shorelines by mandating inclusion of a public access element in local SMPs and requiring provisions to ensure that new development maintains public access features.

The last comprehensive update of Seattle’s SMP occurred in 1987. The SMP update process is the result of new rules governing shoreline activities and use established by the State Department of Ecology. These rules, among other things, establish new thresholds for evaluating SMPs statewide, including no further reduction in the ecological functioning of the shoreline environment. ([link](#)).

### Issues Affecting Urban Forest Management

The City’s SMP and this update in particular are mandated by changes in the State SMA to insure that there is no net loss in ecological function of the shoreline environment. As such, there is language in the update that pertains to the management of trees and other vegetation in the shoreline zone. Below are references to: *tree*, *trees* and *vegetation*.

The following are organized by section in the proposed code. Underlined text is new, ~~strikeout text is removed~~ and plain text is carried forward from the previous version. *My thoughts and comments are appended in green*

#### 23.60.020 Permits and Exemptions

*Allows an exemption for temporary development. This can be extended to 6 months by The Director under section 23.60.092 Temporary development and uses*

4	<u>18. Temporary development of four weeks or fewer if the development:</u>
5	<u>a. does not remove any native vegetation:</u>
6	<u>b. does not include the erection of a permanent structure: and</u>
7	<u>c. does not cause or contribute to permanent adverse impacts to ecological</u>
8	<u>functions and mitigates any temporary adverse impacts to ecological function including impacts</u>
9	<u>caused by overwater structures: and</u>
10	

#### 23.60.152 General development

*All good, but no specific mention of critical root zones and use of native vegetation does NOT insure high ecological function.*

15 F. Disturbance areas and land clearing shall be limited to the minimum necessary for  
16 development. Any surface disturbed or cleared of vegetation and not to be developed shall be  
17 planted with native vegetation except that existing landscaped areas containing non-native  
18 vegetation may be re-landscaped using non-native, noninvasive vegetation if located outside the  
19 shoreline setback pursuant to each shoreline environment and Section 23.60.190.  
20

### 23.60.184 Standards for fill

*This section could be improved, again taking into consideration critical root zones and other 'provisions' of vegetation more explicitly.*

15 ((B))D. ((Shoreline-f)) Fills ((or cuts)) shall be designed, located, constructed, and  
16 managed to ensure stability of slopes created including the provision of vegetation, retaining  
17 walls, or other mechanisms for erosion prevention. ((and located so that:  
18  
19 1. No significant damage to ecological values or natural resources shall occur;  
20

### 23.60.190 Vegetation and impervious surface management in the Shoreline District

12 **23.60.190 Vegetation and impervious surface management in the Shoreline District**  
13  
14 A. Application and plans  
15 1. An application and a plan are required for all actions allowed under this  
16 Section 23.60.190, unless specifically provided otherwise in this Section 23.60.190.  
17 2. Applications shall be made on the form approved by the Director.  
18 3. Plans prepared under this Section 23.60.190. shall be consistent with the  
19 standards promulgated by the Director and with best management practices.  
20 4. Plans prepared under this Section 23.60.190 shall be prepared by a qualified  
21 professional with training and experience related to the type of ecological environment where the  
22 work will occur.  
23 5. Plans shall include location of all disturbance areas and shall identify the type  
24 and size of the existing ground surface coverage and the final proposed ground surface coverage.  
25  
26

*23.60.190 (A) 4. This sub-section lacks any reference to specific qualifications or professional standards.*

23.60.190 (A) 5. *This sub-section, taken in context with subsection 23.60.190 (A) 3 above does not codify that all trees are shown on the plans submitted or that the completeness of the plans with regards to the size, species and location of trees is verified by DPD.*

23.60.190 (A) 2. Noxious weed removal

*Not as relevant as other sections to the UFC, but included in this synopsis for reference. No tree species are currently listed as Noxious Weeds. The following tree species are listed as weeds of concern and the commission may wish to weigh in on whether the control of these species should be also be included: common hawthorn, Crataegus monoqyna; English holly, Ilex aquifolium; English laurel, Prunus laurocerasus.*

5	<u>2. Noxious weed removal</u>
6	
7	a. Removing or controlling aquatic noxious weeds is allowed, allowed as a
8	<u>special use, allowed as a shoreline conditional use, or prohibited as provided in each shoreline</u>
9	<u>environment, subject to mitigation sequencing beginning at Step C of subsection 23.60.158.</u>
10	b. <u>The following techniques are required to be used in the sequence listed</u>
11	<u>below, unless the applicant demonstrates that the priority is inapplicable or not feasible or that a</u>
12	<u>different sequence or technique will be more effective in reducing impacts on ecological</u>
13	<u>functions:</u>
14	
15	<u>1) Hand-pulling or mechanical harvesting and cutting;</u>
16	<u>2) Placement of bottom barriers. Bottom barriers are required to</u>
17	<u>be made of biodegradable material and shall not cover an area greater than 1,000 square feet;</u>
18	
19	<u>3). Rotovating, weed rolling, or other methods that disturbs bottom</u>
20	<u>sediments or the benthos;</u>
21	<u>4) Use of herbicides or other treatment methods applicable to the</u>
22	<u>control of aquatic noxious weeds that are approved by Ecology and the federal Environmental</u>
23	<u>Protection Agency.</u>
24	c. <u>Techniques not listed in subsection 23.60.190.B.2.b are prohibited.</u>
25	

23.60.190 (C). Vegetation and impervious surface management activities

*This section limits both the management and landcover of various landscape vegetation within the shoreline zone. Much of the language deals with the establishment of legally nonconforming uses (grandfathering).*

*Normal and routine maintenance is not otherwise defined; which could be problematic with regard to certain pruning activities.*

4           C. Shoreline District landward of OHW. The following vegetation and impervious  
5 surface management activities are allowed or prohibited within the portion of the Shoreline  
6 District that is landward of OHW, both within and outside the shoreline setback:  
7  
8           1. Normal and routine pruning and maintenance is allowed without submitting an  
9 application:  
10                   a. up to 750 sq. ft. of trees and vegetative cover lawfully maintained prior  
11 to May 9, 2006;  
12                   b. lawns paths and landscaping lawfully maintained prior to May 9, 2006,  
13 that were not in an environmentally critical area or buffer prior to May 9, 2006, but are in an  
14 environmentally critical area or buffer as a result of the passage of Ordinance 122050;  
15                   c. steep slope areas created through previous legal grading activities,  
16 including rockeries or retaining walls resulting from right-of-way improvements, if no adverse  
17 impact on the steep slope or shoreline area will result;  
18                   d. trees and vegetation specifically approved by permit prior to May 9,  
19 2006, if the conditions of that permit are complied with;  
20                   e. vegetation and trees planting and removal approved by the Director  
21 under subsection 25.09.320.A.3.b and c before the effective date of this ordinance; and  
22                   f. vegetation and tree planting and removal shown on a plan filed with the  
23 Department in compliance with subsection 25.09.320.A.3.b before the effective date of this  
24 ordinance.  
25  
26  
27

*The last section establishes a standard for hazard trees that is unique to the shoreline zone. We should consider this carefully. Ideally it would be consistent with applications outside the shoreline zone and with our recommended professional standards as well.*

1           Actions taken under subsection 23.60.190.D.1.d, e and f are required to comply  
2 with the conditions on such permit or plans.  
3           2. Removing trees is allowed if the Director determines the tree is a threat to  
4 health or safety based on a report prepared by a qualified professional with a Tree Risk Assessor  
5 certification as established by the Pacific Northwest Chapter of the International Society of  
6 Arboriculture (ISA) or equivalent experience and training and the removal is performed by or  
7 under the direction of a qualified professional.  
8

What follows are a number of specific exemptions, some of which may be problematic. Section 23.60.190 (D) addresses the shoreline setback (an area immediately adjacent to the shoreline the width of which varies), section 23.60.190(E) addresses other areas of the shoreline zone. For example: 23.60.190(D)1

23		<u>1. Replacing any vegetation or ground surface coverage by planting native</u>	
24		<u>vegetation in an area of 300 square feet or less per year is allowed without submitting an</u>	
25		<u>application if:</u>	
26			
27		<u>a. no new impervious surface is created;</u>	
28			
1		<u>b. land disturbance is minimized and kept within the planting area;</u>	
2		<u>and</u>	
3		<u>c. no native trees are removed.</u>	

It is not clear to me that this wouldn't allow the removal of a mature, non native tree as long as it was replaced with native vegetation that might be limited to herbaceous plants and/or small shrubs. This may be problematic as larger vegetation, blocking water views is often the impetus for shoreline zone tree removal. There is also scant evidence in the scientific literature to differentiate the ecologic function of Pacific Northwest Native trees and non native trees in riparian zones.

This section also lacks protections for trees whose trunks are outside the 300 square feet in question, but whose critical root zone would be substantially and potentially adversely impacted.

Section 23.60.190(D)2 similarly allows the removal of non-native vegetation in conjunction with restoration. Again it is concerning that larger non-native trees may be subject to removal under this provision.

Section 23.60.190(E)1 has similar issues as 23.60.190(D)1 but allows work up to 750 square feet in a single year. It is unclear if this can be combined with the provision in 23.60.190(D)1 to allow up to 1,050 square feet of replanting in a single year.

### 23.60.232 through 23.60.510

These sections deal with the specific setbacks and allowable uses of each shoreline zone. Many contain the following provision:

- 3 | D. All development allowed in the shoreline setback shall be designed to:
- 4 |       1. avoid reducing vegetation coverage;
- 5 |       2. avoid adverse impacts to habitat;
- 6 |       3. minimize disturbance to natural topography;
- 7 |       4. minimize impervious surface; and
- 8 |       5. prevent the need for shoreline stabilization to protect these structures.
- 9 |

*The use of vegetation coverage is concerning as it implies areal coverage and not volume or complexity.*

## **Definitions Relevant to Urban Forest Management**

### **23.60.910 Definitions “E”**

17 |       "Ecological functions" or "shoreline functions" means the work performed or role played

18 | by the physical, chemical, and biological processes that contribute to the maintenance of the

19 | aquatic and terrestrial environments that constitute the shoreline’s natural ecosystem. See WAC

20 | 173-26-200 (2)(c).

21 |

### **23.60.914 Definitions “G”**

9 |       "Grading" means excavation, filling, in-place ground modification, removal of roots or

10 | stumps that includes ground disturbance, stockpiling of earth materials, or any combination

11 | thereof, including the establishment of a grade following demolition of a structure.

### **23.60.924 Definitions “L”**

3 |       “Land disturbing activity" means any activity that results in a movement of earth, or a

4 | change in the existing soil cover (both vegetative and non-vegetative) or the existing topography.

5 | Land disturbing activities include, but are not limited to, clearing, grubbing, grading, filling,

6 | excavation, or addition or replacement of impervious surface.

7 |

### 23.60.926 Definitions “M”

9        “Mitigation” means the action taken to prevent, minimize or replace the loss of  
10 ecological functions resulting from new development or use, or from maintaining, repairing or  
11 altering existing development or use that creates new adverse impacts to ecological functions, or  
12 from substantially improving, replacing or rebuilding a nonconforming development, whether  
13 the impact is new or on-going. Loss of ecological functions may be due to, but not limited to,  
14 location, design, construction and management of the development or use.  
15

### 23.60.928 Definitions “N”

*“Native Vegetation” is not defined.*

17        “Natural area” means an area that is predominately vegetated with native or wild-  
20 growing vegetation.  
21

24        “No net loss of ecological functions” and “NNL” means no degradation to habitat  
25 including the habitat forming processes after the project impacts and mitigation for the project  
26 impacts occur.  
27

14        “Normal and routine pruning and maintenance” means practices that are necessary to  
15 maintain existing pathways and landscaping, ensure the health of existing vegetation, or achieve  
16 limited pruning to allow windowing, reduce tree mass or redirect tree growth. Removal of trees  
17 and non-invasive vegetation is never considered normal and routine maintenance. Pruning  
18 actions must conform to the ANSI A300 standards outlined in The American National Standard  
19 for Tree Care Operations - Tree, Shrub and Other Woody Plant Maintenance - Standard  
20 Practices.  
21

### 23.60.934 Definitions “R”

22        “Restoration and enhancement” or “ecological restoration and enhancement” means  
23 revegetation, removing intrusive shoreline structures, removing or treating toxic materials, or  
24 similar actions to restore impaired shoreline ecological processes or functions by reestablishing  
25 them or upgrading them. Restoration and enhancement does not imply a requirement for  
26 returning the shoreline area to aboriginal or pre-European settlement.  
27

23.60.936 Definitions “T”

*Tree is not defined (but tug boat services is!)*

23.60.942 Definitions “V”

21           "View corridor" means(~~an open-air space on a lot affording a clear view across the lot to~~  
22 ~~the water from the abutting street.~~) an area of a lot that provides a view through the lot from the  
23 abutting public right-of-way to the water unobstructed by structures except as allowed by this  
24 chapter.

*Vegetation coverage is not defined*