



CITY OF BREMERTON

SMP – Getting to No Net Loss – Reach Specific Approach



Barbara Nightingale
Washington State Dept of Ecology

GUIDELINES at WAC 173-26

- **Shoreline Management Act directs Ecology to provide Guidelines for local master programs.**

The 2003 Guidelines are adopted into Washington Administrative Code (Rules based on law).

Guidelines include required contents and policies for SMPs, and the supporting documents.

Provides a basis for Ecology to determine if an SMP can achieve No Net Loss of Ecological Functions on both a project and city-wide scale.



What is the No Net Loss standard?

- “Master programs shall contain policies that assure at minimum, no net loss of shoreline ecological functions necessary to sustain shoreline natural resources” (WAC 173-26-201(2)(c))
- Starting point is shoreline conditions as they exist **today**.
- Recognizes new development will occur. Directs us to avoid, minimize, and mitigate adverse impacts.



Things to keep in mind.....

- Existing conditions: urban vs rural and residential vs. industrial
- Landscape: processes/functions
- Anticipated Development: known or unknown impacts
- SMP-update objective: maintain ecological functions – offset (new) anticipated impacts from allowed SMP uses.

SMP Update Steps

- **Initiate Public Outreach and Participation**
- **Inventory and Characterize Shoreline Conditions**
- **Prepare a Land Use Analysis**
- **Develop Policies and Regulations**
- **Prepare a Restoration Plan**
- **Prepare a Cumulative Impacts Analysis**
- **Local SMP Adoption**

Inventory & Characterization

Reach-based Analysis

- SMP Development began with a careful review of **existing shoreline conditions**.
- Used existing, **available and appropriate scientific information**.
- Inventory/Characterization **documents shoreline uses and ecological resources and conditions across 43 reaches**.
- This becomes the **foundation for everything else in an SMP**.

**City of Bremerton
Shoreline Master Program**

Draft

Shoreline Inventory and Analysis



Prepared for

City of Bremerton
Community Development
345 6th Street
Suite 600
Bremerton, WA 98337-1873

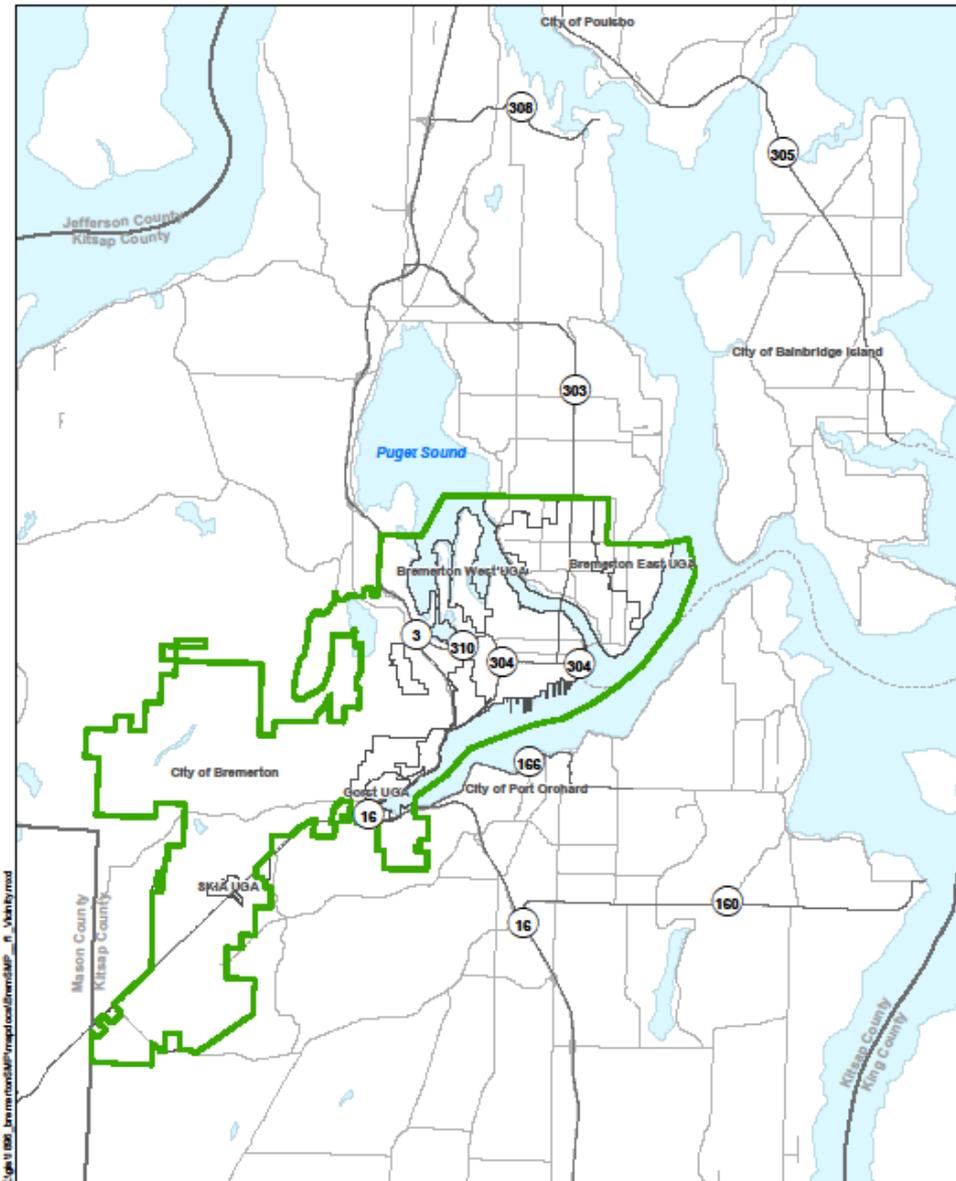
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Prepared by

Parametrix
411 108th Avenue NE, Suite 1800
Bellevue, WA 98004-5571
T. 425.458.6200 F. 425.458.6363
www.parametrix.com

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Parametrix



- █ Study Area
- City Boundary
- Urban Growth Area

Figure 1
City of Bremerton
Shoreline Master Plan Update
Vicinity Map

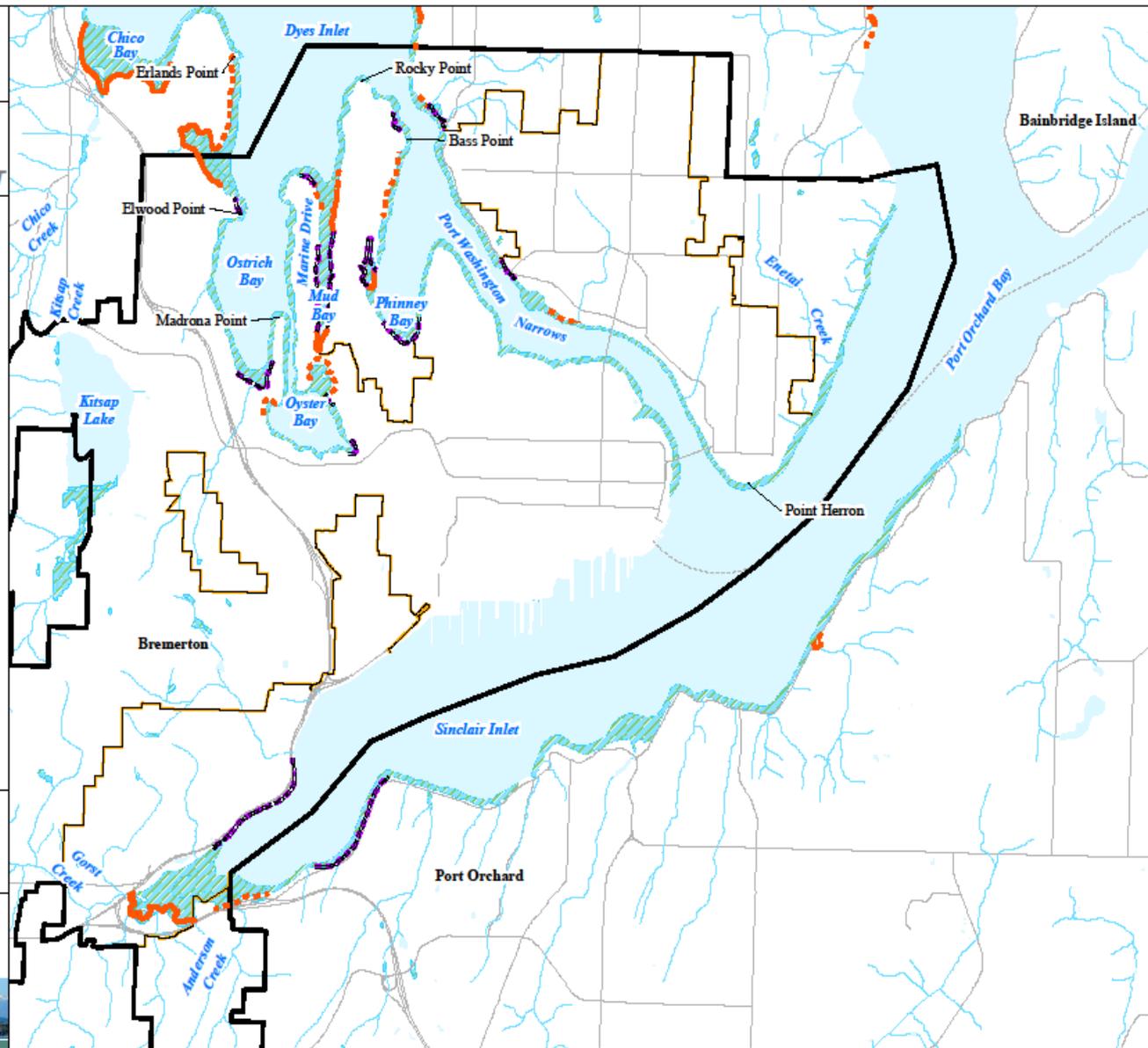
**Shoreline Master Program Update
City of Bremerton**

**Nearshore Vegetation
Marsh Areas
Map 8A**

DRAFT

Legend

-  Study Area
-  City Boundary
-  Rivers and Streams
-  Road
-  Waterbody
- Mixed Marsh**
-  Continuous Mixed Marsh
-  Patchy Mixed Marsh
- Low Marsh**
-  Continuous Low Marsh
-  Patchy Low Marsh
- Salt Marsh**
-  Continuous Salt Marsh
-  Patchy Salt Marsh
-  Wetland (WDFW/NWI)



November 15, 2010
0 3,500
Scale in Feet



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Data Sources: Kitsap County, City of Bremerton, Washington
Department of Natural Resources, Parametrix,
East Kitsap Nearshore Inventory (EKNI)

Note: Shoreline jurisdiction boundaries depicted on this map are approximate
and are intended for planning purposes only. Additional site-specific evaluation
may be needed to confirm/verify information shown on this map.



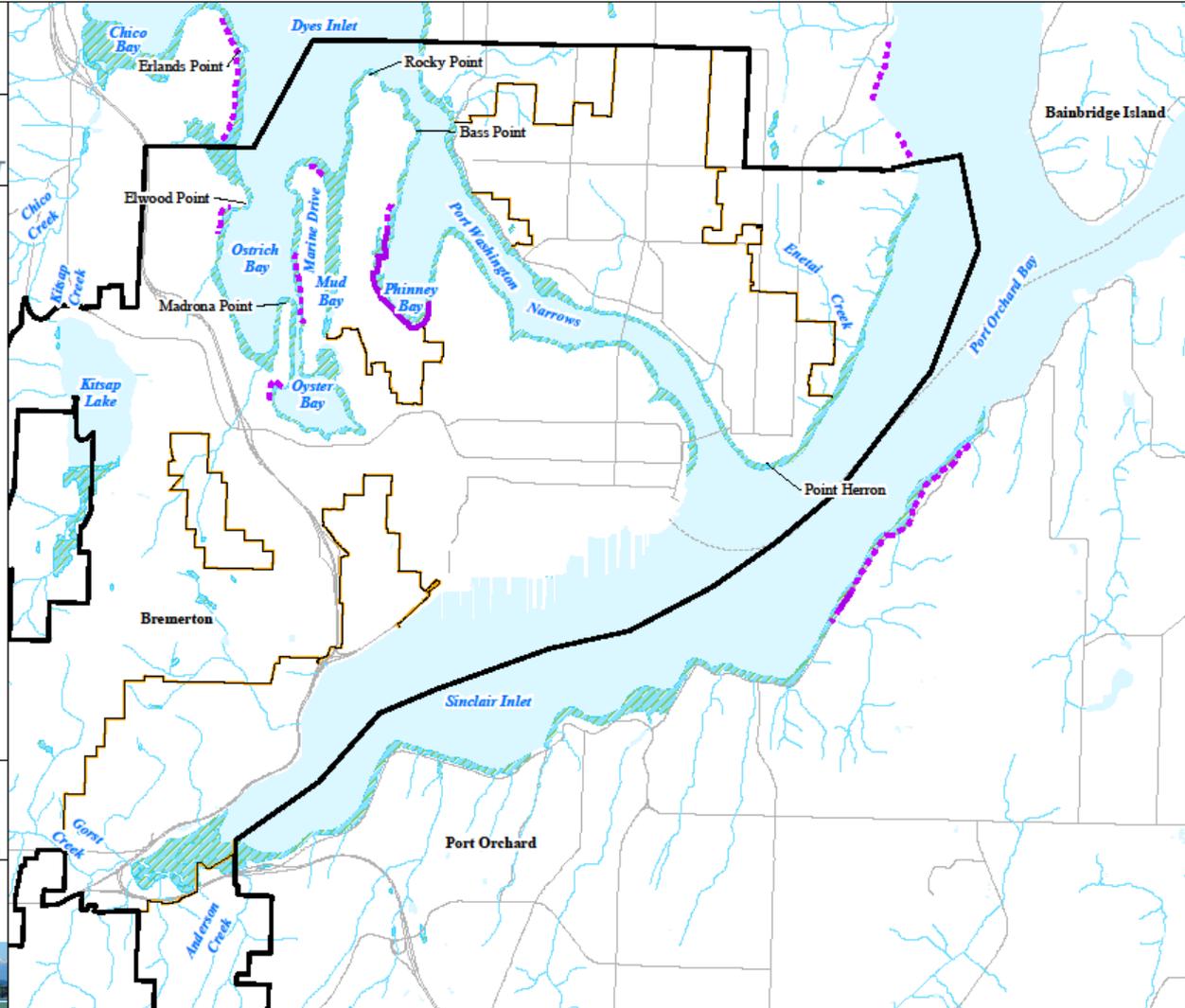
**Shoreline Master Program Update
City of Bremerton**

**Nearshore Vegetation
Eelgrass
Map 8D**

DRAFT

Legend

-  Study Area
-  City Boundary
-  Rivers and Streams
-  Road
-  Waterbody
-  Wetland (WDFW/NW)
- Eelgrass**
-  Continuous Eelgrass
-  Patchy Eelgrass



November 15, 2010
0 3,500
Scale in Feet



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Gorst Estuary

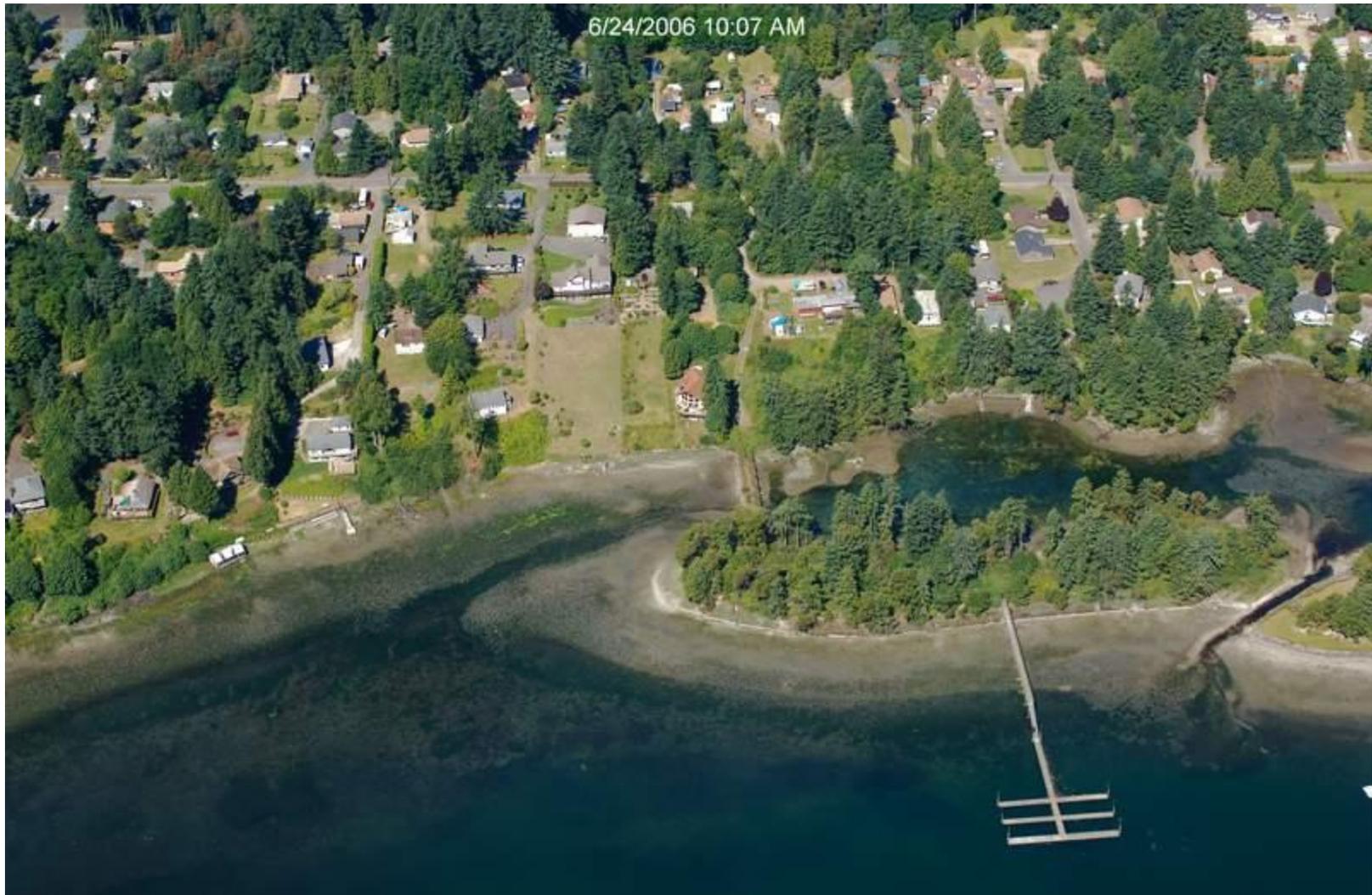
Mouth of Gorst Creek



Ostrich Bay: Riparian Function



Phinney Bay Eelgrass & Riparian



Industrial Shorelines



Gorst Upland Effectively “Isolated” from the Shoreline



Shoreline Master Program Update City of Renton

Shoreline Environment
Overlay Designation

Cedar River

 City Limits

 PAA Boundary

Shoreline Jurisdiction

 Cedar River Reaches

 Lake Washington Reaches

Shoreline Environment Designation

 Natural

 Shoreline High Intensity

 Shoreline Isolated High Intensity

 Shoreline Residential

 Urban Conservancy

 Wetlands

Note: This map should not be used as a definitive source on Associated Wetlands under Shoreline Management Act jurisdiction. Such a determination will be made on a case-by-case basis.

October 7, 2009

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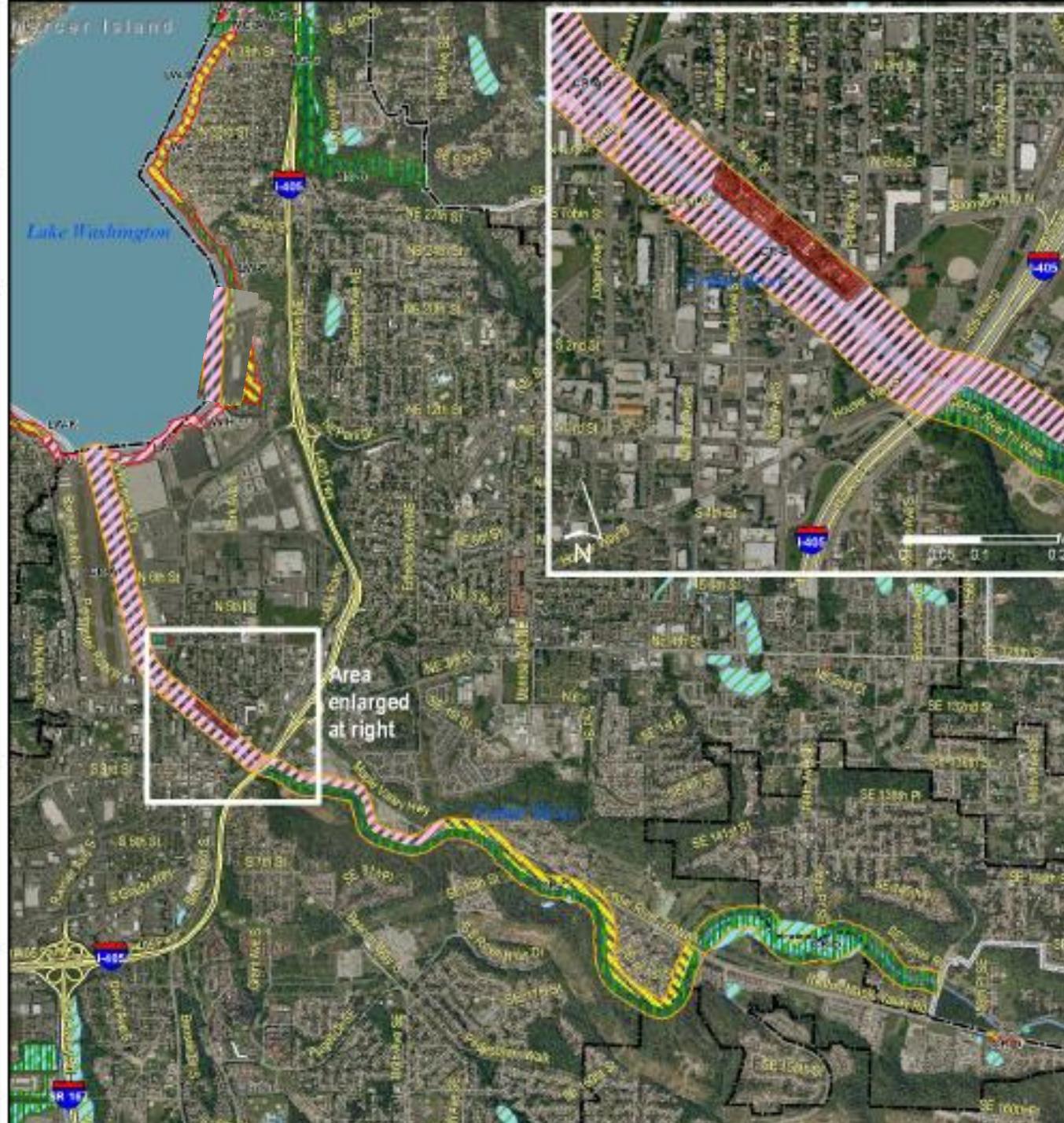


File Name: CEDP\A\A\10\GIS\proj\shoreline_report_program\00P\renton\42_shoreline_designation_swac_war_071_1008.mxd

Actual Data Source: City of Renton 2008;
King County 2009 and ESA Aerials

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City of Renton, Washington
Arthur A. Salinas, GIS Analyst



Renton Update Example:

Setback and Buffer Regulations by Designation

	Natural	Urban Conservancy	Shoreline Single Family	High Intensity	High Intensity Isolated	Aquatic
Setbacks and Buffers						
Structure Setback from Ordinary High Water Mark (OHWM)- Minimum¹						
Water-dependent Use	100 ft.	100 ft.	None ²	None ²	None	
Water-related or Water Enjoyment Use	100 ft.	100 ft.	100 ft. ³	100 ft. ⁴	None	
Non-Water-oriented Use	100 ft.	100 ft.	100 ft. ³	100 ft. ⁵	None	
Front Yard, Side Yard, and Rear Yard Setbacks	Governed by underlying zoning in RMC 4-2 except in cases where specific shoreline performance standards provide otherwise. Variance from the front and side yard standards may be granted administratively if needed to meet the established setback from OHWM, as specified in this section and if standard variance criteria are met.					
Vegetation Conservation Buffer	100 ft.	100 ft.	100 ft. ³	100 ft. ^{4,5}	None	
Building Height- Maximum						
In water	Not allowed	Not allowed	35 ft. ⁶	35 ft. ⁶		35 ft. ⁶
Within 100 feet of OHWM	Not allowed	Not allowed	35 ft. ⁷	35 ft. ⁸	Governed by underlying zoning in RMC	

Table 4-3-090.F.1.I. Vegetation Conservation Buffer Standards by Reach

The following table identifies the performance standards for maintenance and restoration of the vegetation conservation buffer and shall be applied if required by the use regulations or development standards of the Shoreline Master Program.

SHORELINE REACH	Vegetation Conservation Objectives
Lake Washington	
Lake Washington Reach A and B	This developed primarily single-family area provides primarily lawn and ornamental vegetation at the shoreline. Opportunities to limit ongoing adverse impacts shall be implemented through providing for native vegetation in buffers adjacent to the water based on the standards related to lot depth together with replacement of shoreline armoring with soft shoreline protection incorporating vegetation.
Lake Washington Reach C	If areas redevelop, the full 100 foot buffer of native vegetation shall be provided, except where water-dependent uses are located.
Lake Washington Reach D and E	This developed primarily single-family area provides primarily lawn and ornamental vegetation at the shoreline. Opportunities to limit ongoing adverse impacts shall be implemented through providing for native vegetation in buffers adjacent to the water based on the standards related to lot depth together with replacement of shoreline armoring with soft shoreline protection incorporating vegetation.
Lake Washington Reach F	Enhancement of native riparian vegetation shall be implemented as part of park management, balanced with opportunities to provide public visual and physical access to the shoreline. The city may fund shoreline enhancement through fees paid for off-site mitigation from development elsewhere on Lake Washington.
Lake Washington Reach G	Enhancement of native riparian vegetation shall be implemented as part of park management, while recognizing that in this portion of the park is oriented primarily to opportunities to provide public visual and physical access to the shoreline including over water structures, supporting concessions, boat launch and public beach facilities.

A Cumulative Impacts Analysis in support of the SMP update should:

- Utilize baseline info from the Inventory/Characterization
- Assess reasonable foreseeable future development allowed through the updated SMP;
- Demonstrate how (specific) policies, regulations and environment designations identified in the updated SMP will achieve no net loss of shoreline functions;
- Include consideration of beneficial effects of any regulation programs beyond the SMP

Cumulative Impacts Analysis

- No Net Loss -How do we do it?
 - Two scales: Plan level
 - Individual project level
- Carefully designate properties
 - New Standards - Setbacks, vegetation, lighting, water quality, etc.
 - Require developments to mitigate their impacts
 - Avoid impacts
 - Minimize impacts
 - Mitigate for unavoidable impacts
- Create opportunities/incentives for restoration

**Table 17-4
Portion of Kent Cumulative Impacts Analysis Table**

Shoreline Segment	Existing Conditions	Likely Development / Functions or Processes Potentially Impacted	Effect of SMP Provisions	Effect of Other Development and Restoration Activities / Programs	Net Effect
HIGH INTENSITY					
<p>Green River (all or portions of segments B1-7 and PAA-B1 as described in SMP Section 2.C.2.d and Appendix A of the SMP)</p>	<p>These segments include areas generally dominated by commercial and industrial uses. This includes industrial areas just east and west of SR 167 (near SE 209th St.), along Russell Road between I-5 and SR 167, and near Briscoe Park (just south of S 160th St.). Uses are generally one-story buildings surrounded by surface parking lots. A majority of the buildings are separated from the shoreline by the Green River Trail corridor and Urban Conservancy – Open Space environment designation.</p>	<p>Future Development. It is likely that underdeveloped shoreline properties (approximately 1,000 feet of shoreline) will, over time, convert to large- to moderate-scale industrial uses. Remaining areas are built-out and thus unlikely to undergo extensive redevelopment.</p> <p>Functions/Processes Impacted:</p> <ol style="list-style-type: none"> 1. Hydrology: Because of the position of the potential new development relative to the river and the levee, potential impacts are generally related to indirect effects of new impervious surface and stormwater management on hydrologic processes (see Table 14a of the <i>Final Shoreline Inventory and Analysis Report</i>). Per the analysis in Table 14a of the <i>Final Shoreline Inventory and Analysis Report</i>, hyporheic function currently is low because of past hydromodifications to the system. 2. Vegetation and habitat: Upland and aquatic habitat and vegetation functions related to the Green River shoreline would be largely unaffected by new and redevelopment. <p>The function of all leveed Green River segments is likely to improve over time with implementation of levee improvements. Even in the most constrained portions of the High-Intensity environment, the reconstructed levee would likely include improved riparian vegetation on the waterward side, large woody debris, and possibly reduced bank slope or an increased levee setback. Reconstruction of levees to include benches can allow overbank flooding of the bench, thus contributing to restoration of ecological functions that protect and improve water quality and wildlife habitat.</p>	<p>SMP policies for the "High Intensity" environment (see Section 2.C.2 in the SMP) state that:</p> <ul style="list-style-type: none"> • "Developments in the 'High-Intensity' environment should be managed so that they enhance and maintain the shorelines for a variety of urban uses, with priority given to water-dependent, water-related, and water-enjoyment uses." • "In order to make maximum use of the available shoreline resource and to accommodate future water-oriented uses, shoreline restoration and/or public access, the redevelopment and renewal of substandard, degraded, obsolete urban shoreline areas should be encouraged." <p>All private development would be subject to 140- or 150-foot setbacks depending upon whether a levee is present (140 feet if a levee is present and 150 feet if no levee is present) (SMP Section 3.B.1.c.7). All HI-designated areas and associated new and redevelopment on the Green River are located landward of the existing levee.</p> <p>The SMP (and by reference the critical areas regulations) prohibits projects that "cause significant ecological impacts... unless mitigated according to" standard mitigation sequencing outlined in Section 3.B.4.c.4.</p> <p>SMP Sections 3.B.5 (Flood Hazard Reduction and River Corridor Management) and 3.B.12 (Water Quality and Quantity) have a number of provisions that will minimize adverse modifications to the river channel that might further impair water quality or water movement through the system.</p> <p>The Commercial Development standards (Section 6.C.4.c.4) stipulate that "All new commercial development proposals will be reviewed by the City for ecological restoration and public access opportunities. When restoration or public access plans indicate opportunities exist, the City may require that those opportunities are either implemented as</p>	<ol style="list-style-type: none"> 1. Any in- or over-water (including wetlands) proposals would require review not only by the City of Kent, but also by the Washington Department of Fish and Wildlife (WDFW), the U.S. Army Corps of Engineers (Corps), and/or the Washington Department of Ecology. Each of these agencies is charged with regulating and/or protecting streams, lakes, and wetlands, and would impose certain design or mitigation requirements on applicants. A project that includes stream, lake, or wetland fill would require Corps review and permitting. For similar projects along the Green River, a Biological Evaluation would be prepared to assess project impacts on listed fish and wildlife, and that document would be routed to U.S. Fish and Wildlife Service and National Marine Fisheries Service for Endangered Species Act review. These agencies would also impose certain design and mitigation requirements on a proposed project to minimize adverse impacts. 2. As mentioned in the <i>Final Shoreline Inventory and Analysis Report</i>, the City currently uses its 2002 <i>Kent Surface Water Design Manual</i>, which is an addendum to the 1996 <i>King County Surface Water Design Manual</i>. The City will be updating its <i>Surface Water Design Manual</i> as part of the NPDES Phase II permit requirement. Both Ecology's 2005 <i>Stormwater Management Manual for Western Washington</i> and King County's 2005 <i>Surface Water Design Manual</i> will be evaluated as the NPDES Phase II permit requires that the City use minimum requirements that are equivalent to Ecology's manual. Use of the current and future updated stormwater manuals will ensure that stormwater management is effectively designed to minimize/eliminate construction- and operations-related stormwater runoff impacts and mitigate any potential remaining adverse affects. 3. The Natural Resources section of the Land Use chapter of the City of Kent's Comprehensive Plan contains a number of general and specific goals and policies that direct the City to permit and 	<p>Because of the developed nature of this environment and redevelopment pressures, unmitigated new development has the potential to further degrade the baseline condition. Stream implementation of the SMP and the critical areas regulations will be needed to minimize impacts, and is expected to result in the long-term improvement in ecological function. Specifically, requirements for stormwater management, minimization of impervious surface, and installation of native vegetation will help minimize and mitigate impacts.</p> <p>Further the planned implementation of the Green River levee reconstruction and numerous other projects under WRIA 9, the Green/Duwamish Ecosystem Restoration Project, and the King County Flood Control District, ensure that ecological function will be substantially improved in the long-term.</p>

Lake Washington

Key Landscape Process	Physical or Biological Function	Sources of Human Disturbance	Current Trends or Effect of Current Regulations	Proposed SMP Programs to Protect or Restore Processes and Functions
<p><u>Aquatic Habitat: Adjacent Upland Vegetation</u></p>	<p><u>Shade and temperature regulation</u> <u>Organic input to food chain</u></p>	<p><u>Reach Level: Loss of upland buffers result in higher temperatures and reduced organic matter</u></p>	<p><u>Reach Level: Lake WA has little mature vegetation. Could affect nearshore habitat critical to juvenile salmon</u></p>	<p><u>4-3-090.G Veg. Conservation</u></p> <p><u>4-3-090 A. Shoreline Stabilization: minimizing shoreline alteration should enhance buffers</u></p>

Cumulative Impacts Analysis

Inventory → SMP → No Net Loss

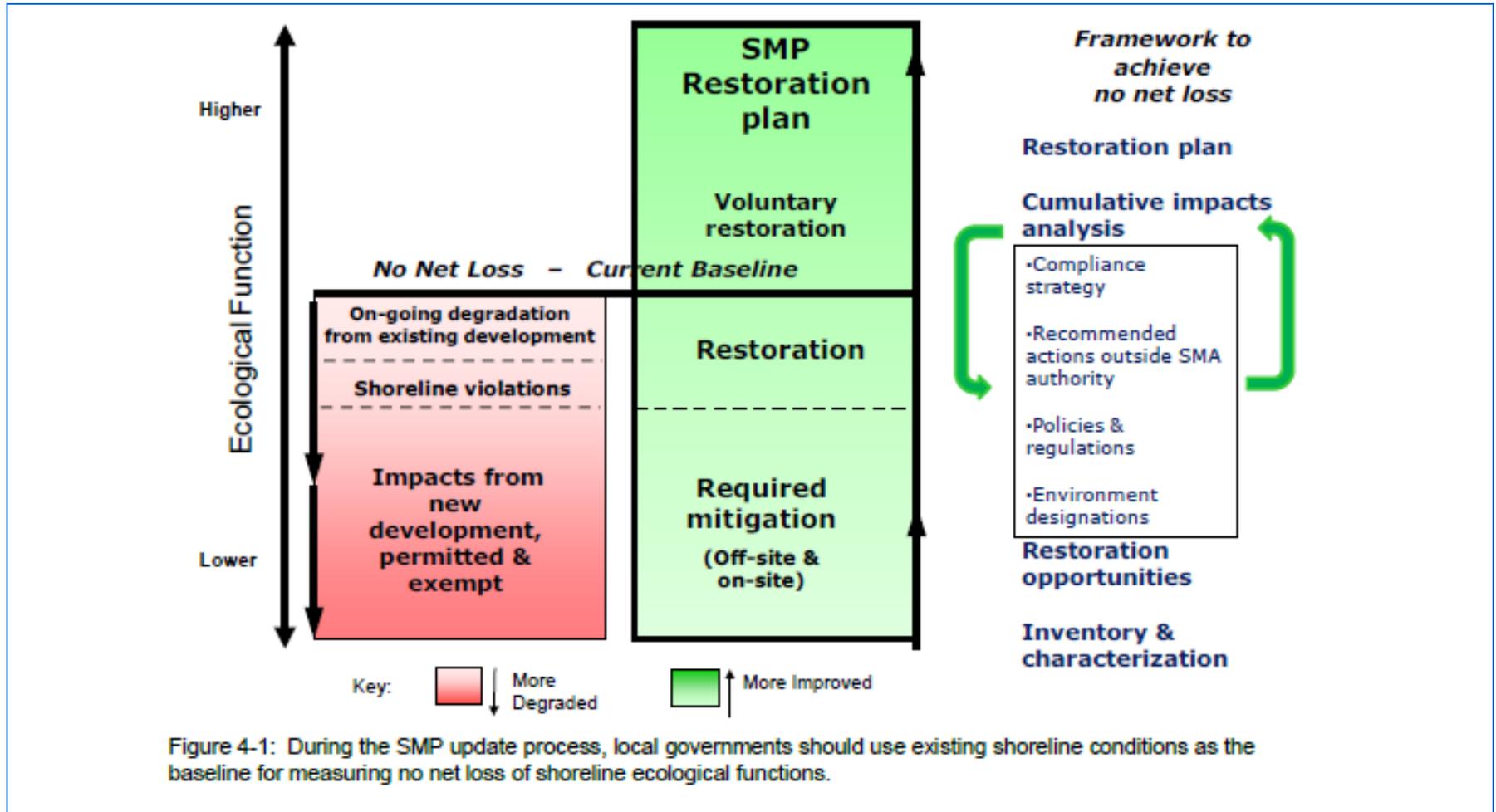


Figure 4-1: During the SMP update process, local governments should use existing shoreline conditions as the baseline for measuring no net loss of shoreline ecological functions.

SMP Changes

- Increased number of shorelines covered.
- **More site and use-specific policies and regulations to achieve no net loss; while providing development flexibility & certainty.**
- New Environment Designations, more specific to the uses and ecological conditions.
- **New dock specifications consistent with federal regulations.**
- **Limits on impervious surface in first 100 ft from OHWM-by reach.**
- **Vegetation Conservation Requirements and incentives for first 100-feet from OHWM – developed on a reach-specific basis.**
- **Shoreline Stabilization – new development required to be placed to avoid need for bulkhead protection. Where shoreline protection need is demonstrated, a hierarchy of preferences from hard armoring (the least preferred) to soft techniques, with nonstructural being most preferred.**
- **Incentives to remove bulkheads and add native vegetation.**
- **Regulations that have demonstrated the potential to get to no net loss.**