memorandum

date February 29, 2012
to Gordon Euler, Clark County
cc: Rod Orlando, Town of Yacolt Planning Consultant
from Reema Shakra, Teresa Vanderburg, Ikuno Masterson, ESA
subject Shoreline Master Program Update, No Net Loss Summary – Clark County, Washington

Introduction

The purpose of this memo is to document how the Clark County Draft Shoreline Master Program (SMP) achieves “no net loss” of shoreline ecological functions. This summary is based on the conclusions of the Clark County Cumulative Impacts Analysis which was an assessment of the following:

- The analysis of baseline conditions from the Clark County Coalition Inventory and Characterization Report (June 2010);
- The goals, policies, and regulations of the Draft SMP; together with
- The proposed measures in the Clark County Coalition Shoreline Restoration Plan.

The integration of the overall SMP was evaluated to assess how ecological functions for shorelines in unincorporated Clark County might be expected to perform as development occurs over the next twenty years.

The concept of no net loss of shoreline ecological functions has been rooted in the Shoreline Management Act (SMA) since its enactment by the citizens of the state of Washington in 1971. The Act states that “permitted uses in the shoreline shall be designed and conducted in a manner that minimizes in so far as practical, any resultant damage to the ecology and environment of the shoreline area…” (WAC 173-26-176[2]). The concept was translated into the goals, policies, and governing principles of Ecology’s guidelines for updating local government SMPs. The guidelines suggest that “no net loss” is achieved primarily through regulatory mechanisms including mitigation requirements but that restoration incentives and voluntary actions are also critical to achieving the “no net loss” goal.

County Shorelines

The shorelines of Clark County span the mountainous regions and foothills, through the broad terrace plains, and down into the floodplain of the lower Columbia River.
There are nearly 22,000 acres of land within SMA shoreline jurisdiction in unincorporated Clark County, outside of urban growth areas and 2,700 acres within urban growth areas for an approximate total of 24,700 acres.

There are a total of 283 miles of SMA jurisdictional shoreline within Clark County, excluding cities and urban growth areas (UGA) (see Table 1-1 below). These shoreline miles include 214 stream miles and 70 miles of lakeshore. Shorelines of statewide significance include the Columbia and Lewis Rivers; portions of the East Fork Lewis and Washougal Rivers; and Merwin and Yale Lakes. There are a total 66 miles of county shorelines identified as shorelines of statewide significance.

<table>
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<th>Waterbody Type</th>
<th>Number of Waterbodies</th>
<th>Number of Reaches</th>
<th>Shorelines of Statewide Significance (in miles)</th>
<th>Total Miles</th>
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<tbody>
<tr>
<td>Rivers and Streams</td>
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<td>105</td>
<td>42</td>
<td>214</td>
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<td>Lakes</td>
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<td>TOTAL</td>
<td>54</td>
<td>119</td>
<td>66</td>
<td>283</td>
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</table>

*Note that the number of waterbodies and number of reaches include duplicate counts for waterbodies that extend into UGA areas.

Within urban growth areas, there are a total of 42 miles of SMA jurisdictional shoreline (see Table 1-2 below). These shoreline miles include 20 stream miles and 23 miles of lakeshore. Shorelines of statewide significance include the Columbia River; portions of East Fork Lewis and Washougal Rivers; and Vancouver Lake.

<table>
<thead>
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<th>Waterbody Type</th>
<th>Number of Waterbodies</th>
<th>Number of Reaches</th>
<th>Shorelines of Statewide Significance (in miles)</th>
<th>Total Miles</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rivers and Streams</td>
<td>14</td>
<td>67</td>
<td>3</td>
<td>20</td>
</tr>
<tr>
<td>Lakes</td>
<td>5</td>
<td>13</td>
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<td>23</td>
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<tr>
<td>TOTAL</td>
<td>19</td>
<td>80</td>
<td>16</td>
<td>42</td>
</tr>
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</table>

*Note that the number of waterbodies and number of reaches include duplicate counts for waterbodies that extend into the County.

The distinction between non-UGA and UGA shorelines is an artifact of the methodology employed in the Clark County Coalition Draft Cumulative Impacts Analysis (February 2012) which was conducted by shoreline designation at the reach-scale for each waterbody. With a twenty-year planning horizon, the analysis was conducive to integrating the UGA lands with their respective city so that the anticipated
future performance of shoreline ecological functions were assessed based on the protective provision of each City’s Draft SMP.

**Ecological Functions**

Based on the findings of the Shoreline Inventory and Characterization (ICR) (ESA Adolfson, 2010), ecological functions most at risk as a result of future development in Clark County shorelines include:

- Riparian and shoreline habitat;
- Associated wetlands;
- Priority habitats and species in the Columbia River and its floodplain;
- Water quality and quantity;
- River/floodplain connectivity;
- Salmon spawning and rearing habitat;
- Salmonid passage and migration.

**Reasonably Foreseeable Future Development**

There are nearly 22,000 acres of land within SMA shoreline jurisdiction in unincorporated Clark County, outside of urban growth areas. Based upon the build-out scenario and analysis of reasonably foreseeable future development in the County Cumulative Impacts Analysis, it was determined that 99 percent of the vacant lands within the County’s shoreline jurisdiction are residential lands with a potential for approximately 394 additional units over the next 20 years. However, this number of future residential units is likely higher than would occur since this analysis did not take into account the percentage of land constrained by critical areas or other factors such as land required for public infrastructure. The purpose of over-estimating development on vacant lands in this manner is to determine impact on ecological functions under a high-development scenario. Agricultural and forestry activities are expected to remain stable.

**Cumulative Impacts Assessment**

A cumulative impact assessment was conducted on the Clark County Coalition Draft SMP in March 2011 and again in June 2011 on the individual Coalition member Draft SMPs. In March 2011, a preliminary finding of potential for loss was determined. In response, the Coalition staff, with input from citizens and advised by the Shoreline Stakeholder Advisory Committee, Technical Advisory Committee and Independent Science Review Panel, re-examined and changed several of the designations placed on specific shoreline reaches, revised regulations associated with specific uses, dimensional standards, such as structure setbacks, and vegetation conservation provisions. The County, together with the respective Coalition cities re-designated several areas in the UGA from Medium Intensity to Urban Conservancy for greater protections of resources, adjusted setbacks for accessory parking and structures in the Urban Conservancy shoreline designation from 50 feet to 100 feet. Of particular note are the County’s clarifications and improvements in the vegetation conservation standards. These revisions were incorporated into the Clark County Draft SMP (June, 2011).

The Clark County Draft Cumulative Impacts Analysis conducted in June 2011 anticipated minimal cumulative adverse impacts as a result of implementing the June program. An adjustment to the
exemption process to ensure consistency with the SMP and a focused commitment to restoration opportunities identified in the Coalition Restoration Plan were identified as offsets for potential impacts.

During public comment and the local adoption process in the summer and fall of 2011, Clark County made changes to the June draft program and incorporated recommendations from the cumulative impacts analysis. The County added a requirement that exempt developments be conditionally approved and adopted their program on November 22, 2011. Further, the County revised shoreline designation maps to make the designations consistent with zoning and parcel boundaries and to finalize the shoreline jurisdictional boundaries. The updated cumulative impacts analysis (February 28, 2012) confirmed that the November SMP would serve to maintain shoreline functions. More information can be found in the Clark County Cumulative Impacts Analysis dated February 28, 2012. Also, the Clark County Coalition Draft Cumulative Impacts Analysis, Appendix A (February, 2012) provides additional detail by waterbody and shoreline designation as to specific measures that serve to protect ecological functions and processes.

**Conclusions**

The baseline conditions of ecological functions and processes in the Clark County ICR (ESA Adolfson, 2010) were used as the basis for decisions made throughout the County’s SMP update process. The inventory was integral to the development of the shoreline designations, informed goal and policy development, led to the establishment of protective regulations, and shaped the conclusions of the cumulative impact analyses.

The June 2011 No-Net-Loss report summarized findings of the cumulative impacts analysis on Clark County’s June Draft SMP and found that potential for net loss was not anticipated. Upon re-examination of the County’s November 2011, locally-adopted SMP and its cumulative impacts analysis, this conclusion does not change based largely on the existing functions of Clark County’s shorelines and anticipated low levels of foreseeable future development. ESA has determined that implementation of the County’s November 2011 locally-adopted SMP with its protections for critical areas, vegetation conservation, use and modification standards and commitment to the Clark County Coalition Restoration Plan, in combination with existing protective regulations and programs, will over time, achieve no net loss of Clark County shoreline ecological functions.