

CLARK COUNTY COALITION SMP UPDATE

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Draft

CLARK COUNTY SHORELINE MASTER PROGRAM UPDATE

City of Ridgefield
Draft Cumulative Impacts Analysis

Prepared for
City of Ridgefield

June 2011



DRAFT

1.0 INTRODUCTION

The intent of this document is to summarize the evaluation of potential cumulative impacts to shoreline ecological functions that may occur as a result of implementing the City of Ridgefield Shoreline Master Program (SMP) as it is currently proposed. This summary is based on the Draft Clark County Coalition Draft Cumulative Impacts Analysis (Coalition Analysis), dated June 2011. All components of the Coalition's Analysis are applicable to the City of Ridgefield unless otherwise stated in this report and is integral to understanding this analysis.

This report first introduces the shorelines of the state that are located in Ridgefield and its Urban Growth Area (UGA). Based on existing conditions, as documented in the Clark County Coalition Shoreline Inventory and Characterization Report (Coalition ICR) (ESA Adolfson, 2010), the ecological functions most at risk are identified. As part of this analysis "reasonable foreseeable development" is projected for Ridgefield and its UGA using assumptions from the Coalition Analysis. The conclusion discusses potential cumulative impacts, if any, of the City's Draft SMP on shoreline ecological functions.

2.0 INVENTORY AND CHARACTERIZATION

The Coalition ICR (ESA Adolfson, 2010) identifies existing conditions and assesses the ecological functions and processes in the City's shoreline jurisdiction. The inventory includes all shoreline areas within the city of Ridgefield and its designated UGA.

2.1 Shorelines of the State

Two shorelines of the state are located within the city limits and UGA: Lake River and Gee Creek.

2.2 Ecological Functions

Based on the findings of the Coalition ICR (ESA Adolfson, 2010), ecological functions most at risk in the City's shorelines include:

- Shoreline and riparian habitat;
- Water quality and quantity; and
- River/floodplain connectivity.

2.3 Management Recommendations

During the development of the Coalition ICR, an initial set of general management recommendations were generated in response to the findings about shoreline functions for each of the SMA waterbodies in the County. These management recommendations were developed to provide guidance to the Coalition as they moved forward in their SMP update process of goals, policies, and regulations. For Ridgefield, these general recommendations for Lake River and

Gee Creek are summarized below. For additional discussion and detail please refer to the Coalition ICR.

2.3.1 Vegetation Management

- Riparian areas and vegetation conservation zones should be restored to remove non-native and invasive plant species. Native trees and shrubs should then be planted. Salmon habitat is supported by riparian zones that contain native trees and shrubs, which provide food sources, shading and large woody debris to lakes, rivers and streams.
- Vegetation conservation measures and setbacks and buffers from the ordinary high water mark should be required for all future development along shorelines.
- Prevent the introduction of non-native invasive species and encourage rapid eradication. Develop an invasive plant inventory to track changes and prioritize areas for eradication.

2.3.2 Program Considerations

- Consider the importance of confluence areas (areas where tributaries join the mainstem Columbia River) for juvenile salmonid rearing when developing goals, policies, and regulations.
- Regulatory language should be written in a manner that is easy to understand and provides options for compliance.
- Consider improving the shoreline permitting process to ensure adequate review of impacts, public noticing, compliance with regulations and agency coordination.
- Consider developing an inventory of archaeological sites that contribute to the history and understanding of past human activities in Clark County.

2.3.3 Development Regulations – Hard Armoring

- Consider regulations that encourage and facilitate levee setback projects (e.g., pulling back an existing levee to allow for a larger floodplain area contiguous to a waterbody) and other shoreline enhancement projects.
- Consider requirements for soft-shore bioengineering techniques where new armoring or retrofits cannot be avoided.
- Consider alternatives to new armoring such as setbacks and vegetated riparian zones. New developments should be located on the property in such a manner as to not require shoreline armoring in order to protect the house and other structures.

2.3.4 Development Regulations – Overwater Structures

- Consider size limitations for overwater structures, including new docks, piers or floats.

- Consider joint-use docks prior to construction of single-use residential docks to minimize dock proliferation and shading impacts.

2.3.5 Development Regulations – Mitigation

- Consider requirements for new development to provide an analysis during permit approval of existing and newly proposed impacts to the site-specific ecological functions and values in order to focus and improve the effectiveness of any required mitigation.
- Require mitigation sequencing as per the shoreline guidelines. Project designs should demonstrate avoidance and minimization, prior to compensatory mitigation or replacement of functions.
- The goal of mitigation is no net loss of shoreline ecological functions from the baseline condition established in the ICR.
- Consider requiring public access that is commensurate with the scale and character of future development and avoids adverse effects on the natural shoreline character and functions.

2.4 Shoreline Use Analysis

2.4.1 Lake River

Existing uses along Lake River in Ridgefield are almost entirely composed of vacant lands. Waterfront uses include the Port of Ridgefield and McCuddy's Marina. The Port property is degraded and the site of a major environmental cleanup effort. The Port is planning a mixed-use development for the site. McCuddy's Marina includes covered moorage, boathouses, and moorage for houseboats. There is a community of floating homes totaling approximately 55 structures along 2-3 piers. The site also includes a boat launch and dock. The Burlington Northern-Santa Fe railroad track parallels Lake River through the city.

2.4.2 Gee Creek

Existing uses in the Gee Creek shoreline planning area are a mix of suburban residential and vacant lands. Gee Creek is crossed by six roadways, at least one of which is culverted. There are no apparent water-oriented uses on Gee Creek. Three water production wells are located in Abrams Park within the Gee Creek shoreline planning area, and an Olympic Gas Pipeline runs under Gee Creek in Abrams Park.

3.0 SHORELINE DESIGNATIONS

Shoreline Designations (SDs) were developed based on a review of the Coalition ICR, biological and physical characteristics of the shoreline, existing development patterns, and goals and aspirations of the community as expressed through the Ridgefield Comprehensive Plan. The City was also directed by the definitions in Washington State's Shoreline Guidelines (WAC 173-26-211). The specific methodology by which the designations were established is described in the

Draft Coalition Analysis as well as the Shoreline Designation Rationale Memo, Appendix B of the Ridgefield Draft SMP.

The three designations that are proposed for the City include the following:

1. **Aquatic** – The purpose of this designation is to protect, restore, and manage the unique characteristics and resources of in water areas and submerged lands. This designation is applied to all lands waterward of the OHWM in Gee Creek and Lake River.
2. **Urban Conservancy** – The purpose of this designation is to protect and restore ecological functions of open space, floodplains, and other sensitive lands, where they exist in urban and developed settings, while allowing a variety of compatible uses. This designation is concentrated around Gee Creek and the majority of the eastern shore of Lake River.
3. **High Intensity** – The purpose of this designation is to provide for high-intensity water-oriented commercial, transportation, and industrial uses while protecting existing ecological functions and restoring ecological functions in areas that have been previously degraded. This designation is concentrated along the northern portion of Lake River.

4.0 SHORELINE MASTER PROGRAM

4.1 Goals and Policies

The Ridgefield Draft SMP has goal statements and policies for general and specific shoreline developments, modifications and uses (see Chapter 3 of the Draft SMP). Goals and policies were developed based on the state's shoreline guidelines, the Coalition ICR, Clark County Coalition SMP Update Management Strategy, input from the general public, and City's Comprehensive Plan. New policies were developed that are unique to the City's Draft SMP. Policies that were included based on the Coalition ICR are intended to address the management recommendations and to ensure no loss of shoreline functions from baseline conditions.

4.2 Regulations

The Draft SMP establishes regulations for general and specific shoreline developments, modifications and uses. The regulations are generally designed to improve protection of shoreline ecological functions and management of the resources identified in the Coalition ICR. Protective regulations in the draft SMP include, but are not limited to:

4.2.1 Critical Areas

- The critical area regulations from Ridgefield Municipal Code (RMC) Chapter 18.280 have been appended to the Draft SMP (see Appendix C).
- Reasonable use exceptions must be processed as a shoreline variance.
- If shoreline critical area impacts cannot be avoided, then mitigation must occur such that no net loss of shoreline ecological function is achieved.

4.2.2 Water Quality

- New development must meet current stormwater management standards, BMPs must be used to control treatment and release of surface runoff, erosion control methods must be used during construction and operation, and low-impact development approaches must be implemented to the maximum extent feasible.
- Other regulations prohibit the use of herbicides, fungicides, fertilizers, and pesticides within 25 feet of a waterbody, except by a qualified professional in accordance with state and federal laws. In-water structures must be constructed of materials that will not adversely affect water quality or aquatic plants and animals over the long term.

4.2.3 Vegetation Conservation

- There cannot be a net loss in the amount or ecological function of existing vegetated area, and the removal of native vegetation should be avoided.
- Topping trees is prohibited and pruning is only allowed in limited amounts.
- Developments must be located to avoid clearing and grading mature or multi-storied plant communities and to retain habitat connectivity.
- Habitat that cannot be replaced or restored within 20 years must be preserved.
- When restoring or enhancing vegetation, native species must be used.

4.2.4 Structural Shoreline Stabilization

- New hard armoring must obtain a conditional use permit and prove that soft-shore stabilization is not feasible.
- Naturally regenerating systems for the prevention and control of shoreline erosion must be used instead of structural solutions where (1) the length and configuration of shoreline will accommodate such systems; (2) such protection is a reasonable solution to the needs of the specific site; and (3) the project will achieve one or more of the following:
 - Recreate or enhance natural shoreline conditions;
 - Create or enhance natural habitat;
 - Reverse otherwise erosional conditions; or
 - Enhance access to the shoreline, especially to public shorelines

5.0 RESTORATION PLAN

A Clark County Coalition Draft Shoreline Restoration Plan was developed as part of the SMP update process (ESA Adolfson, 2011). Restoration opportunities were identified for Lake River and Gee Creek and are summarized below.

5.1 Lake River

Restoration opportunities that would be implemented at a programmatic level include the following:

- Create and/or restore side channel and off-channel habitat for chum spawning and coho overwintering;
- Restore riparian forest on the western shore;
- Supplement large woody debris;
- Control invasive riparian vegetation;
- Protect, enhance, and restore wetland habitat;
- Improve water quality;
- Remove, lower, or set back dikes and levees;
- Provide for adequate in-stream flows through management of water withdrawals;
- Support stewardship and volunteer opportunities for restoration through Lower Columbia River Estuary Partnership (LCREP);
- Improve treatment of stormwater discharge to Vancouver Lake/Lake River system; and
- Support ongoing Total Maximum Daily Load (TMDL) studies for Salmon Creek and Burnt Bridge Creek, upstream tributaries contributing pollutants.

5.2 Gee Creek

Restoration opportunities that would be implemented at a programmatic level include the following:

- Enhance and restore riparian vegetation through education and acquisition, livestock fencing, and topsoil restoration;
- Remove or stabilize small dams;
- Control invasive riparian vegetation;

- Improve water quality by restricting livestock access to streams and educating shoreline property owners on best management practices;
- Remove barriers to fish habitat and supplement large woody debris;
- Protect wetland habitat; and
- Use groundwater recharge and infiltration techniques as part of stormwater management strategy.

The site-specific restoration opportunities identified for the Gee Creek include:

- Acquire wetlands west of NW 51st Avenue and north of NW 298th Street.
- Reforest the floodplain and riparian corridor upstream of I-5.
- Preserve intact forest areas between Royle Road and I-5.
- Upgrade stormwater facilities and outfalls at numerous locations noted in 2007 Stormwater Needs Assessment Program report.
- Control invasive vegetation at numerous locations noted in 2007 Stormwater Needs Assessment Program report.
- Conduct further analysis of fish passage barriers and replace culverts as needed at numerous locations noted in 2007 Stormwater Needs Assessment Program report.
- Assess and replace fish passage barriers at Union Pacific railroad crossing near mouth of Gee Creek.
- Assess and replace fish passage barriers between Main Street and Royle Road.

6.0 CUMULATIVE IMPACTS ASSESSMENT

A cumulative impact assessment was developed in March 2011 to address the Clark County Coalition Preliminary Draft SMP and. A preliminary finding of potential net 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 use allowances, dimensional standards, such as structure setbacks, and vegetation conservation. Some of these revisions were incorporated into the Ridgefield Draft SMP (June, 2011). The Clark County Coalition Draft Cumulative Impact Analysis (June, 2011) provides additional detail as to which regulations in the City's Draft SMP serve to protect ecological functions and processes.

6.1 Reasonably Foreseeable Future Development

The table below shows the amount of shoreline properties (both in acres and percent) located in City of Ridgefield. Most shoreline properties are classified as *public lands*, *residential vacant*, and *residential underutilized*. Very few properties are classified as commercial and none as industrial.

Table 6-1. Distribution of Shoreline Properties in the City of Ridgefield and UGA

Cumulative Impact Analysis Categories		Acres	Percentage
Commercial	Built	6	4%
	Underutilized	0	0%
	Vacant	0	0%
Industrial	Built	0	0%
	Underutilized	0	0%
	Vacant	0	0%
Residential	Built	17	12%
	Underutilized	26	18%
	Vacant	40	27%
Public lands		57	39%
Tax Exempt lands		0	0%
Total acres in shoreline jurisdiction		146	100%

According to the underlying zoning density allowances, *residential vacant* lands have the potential to develop with an additional 196 units in Ridgefield and its urban growth area. This value does not take into account the percent of land that would be constrained by critical areas, the percent of land necessary to build supporting infrastructure (roads, stormwater ponds, septic drain fields), and the likelihood of actual development in the next 20 years (typically referred to as the market factor). Therefore, the number of potential future residential units is higher than would likely occur. The purpose of overestimating development on vacant lands in this manner is to determine impact on ecological functions under a worst-case scenario.

7.0 DRAFT CONCLUSION

The baseline conditions of ecological functions and processes in the Coalition ICR were used as the basis for decisions made throughout the City’s SMP update process. The inventory was integral to the development of the shoreline environment designations, informed goal and policy development, led to the establishment of protective regulations, and shaped the conclusions of this cumulative impacts analysis. All components of the Coalition’s Cumulative Impacts

Analysis (June 2011) are also applicable to this analysis of the City of Battle Ground's Draft SMP unless otherwise stated in this report.

While the levels of foreseeable future development in Ridgefield's shorelines are anticipated to be moderate, the baseline conditions lead to a determination that the potential for cumulative impacts on shoreline ecological functions is unlikely under the City's proposed program. However the allowance for moorage and the potential for vegetation loss in the Lake River Urban Conservancy shoreline designation warrant monitoring.

To continue the trend toward improvement of shoreline ecological functions, to address the concerns described above, and to ensure that potential incremental impacts of exempt activities, illegal actions, and ongoing degradation do not lead to loss of shoreline ecological functions and the following actions are recommended:

- Establish a standard review process for shoreline exemptions to assure that single-family residential and associated exempt activities meet the goals and standards of the program. Since the majority of development is anticipated to be single-family residential, a formal process for single-family residential development is needed to reduce cumulative impacts;
- Further limit where and under what circumstances single-use piers and docks may be permitted;
- Due to the proximity of the Ridgefield National Wildlife Refuge, consider specific protections or development provisions to ensure no cumulative impacts to significant habitat in the NWR;
- Establish a citywide shoreline restoration program to restore degraded habitats in the shoreline. Use of citywide shoreline restoration to offset cumulative impacts is allowed and encouraged by the shoreline guidelines. Incorporate opportunities identified in the Coalition Restoration Plan specifically focused on the following.
 - Revegetation of degraded riparian zones;
 - Enhancement of degraded wetlands; and
 - Preservation of associated wetlands and floodplains through purchase of lands.