

NO NET LOSS REPORT

Klickitat County's Shoreline Master Program

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NO NET LOSS REPORT

FOR KLICKITAT COUNTY'S SHORELINE MASTER PROGRAM

1 INTRODUCTION

The Shoreline Management Act guidelines (Guidelines) require local shoreline master programs to regulate new development to “achieve no net loss of ecological function.” This No Net Loss (NNL) Report provides a summary of how the development of the County’s Shoreline Master Program (SMP) and supporting documents, including the Shoreline Analysis Report, Shoreline Restoration Plan, and Cumulative Impacts Analysis, will ensure that ecological functions will not be degraded or minimized over time as the SMP is implemented.

2 SHORELINE JURISDICTION

As defined by the Shoreline Management Act of 1971, shorelines include certain waters of the state plus their associated “shorelands.” At a minimum, the waterbodies designated as shorelines of the state are streams whose mean annual flow is 20 cubic feet per second (cfs) or greater, lakes whose area is greater than 20 acres, and all marine waters. 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 to be included in its master program as long as such portion includes, as a minimum, the floodway and the adjacent land extending landward 200 feet therefrom. Any city or county may also include in its master program land necessary for buffers for critical areas” (RCW 90.58.030).

The County contains approximately 437 miles of streams, rivers, and lakes that meet shoreline jurisdiction criteria. The total area of upland shorelands is approximately 32 square miles (20,480 acres), including floodways and associated wetlands.

In eastern Washington, all streams and rivers which have mean annual flow of 200 cfs or greater or portions of waterbodies downstream from the first 300 square miles of drainage area are considered Shorelines of Statewide

Significance. Additionally, any lakes larger than 1,000 acres are also Shorelines of Statewide Significance. This special status applies to all shorelines within the County along the Columbia River, Klickitat River, Trout Lake Creek and the White Salmon River. No lakes in the County meet this criteria.

3 SHORELINE ENVIRONMENT DESIGNATIONS

The assignment of shoreline designations is an important step in achieving no net loss of ecological function. It can help minimize impacts by concentrating development in lower functioning areas that are not likely to experience significant function degradation with incremental increases in new development or redevelopment.

The Shoreline Analysis Report evaluated existing conditions in the County's shorelines. The inventory of shoreline conditions and evaluation of ecological functions was completed along the three main watersheds (White Salmon – WRIA29b, Klickitat-WRIA30, and the Columbia River) for a total of 60 reaches. The existing environment designations remained the same in name, with slight modifications to the designation criteria and management policies. Therefore, in many areas, the environment designation is not proposed for change. However, some changes to environment designation mapping are recommended based on existing ecological function, existing land use, and anticipated future land use.

The County's proposed SMP establishes five upland environment designations, including Urban/Industrial, Community, Rural, Conservancy, and Natural, and one Aquatic environment designation for areas waterward of the OHWM.

3.1 Urban/Industrial

The Urban/Industrial environment designation is proposed for shoreline areas characterized by high intensity and diverse land uses such as commercial and industrial development, as well as community facilities. According to the proposed SMP, the Urban/Industrial designation is intended to ensure optimum utilization of shorelines occurring in industrial areas by providing for manufacturing, commercial, high density residential and industrial uses, and providing for orderly future development. Management policies emphasize giving priority to water-dependent, water-related, and water-enjoyment uses; providing public access to the shoreline; and minimizing impacts by utilizing existing developed areas before expanding into new areas.

3.2 Community

The Community environment designation is proposed for areas of moderate to intense land use including residential, recreational, and commercial development and predominantly single-family or multifamily residential development or are planned for residential development. The Community designation is intended to accommodate residential development and appurtenant structures while also providing appropriate public access and recreational uses. Management policies focus on ensuring that development is designed to be compatible with its location, including any environmental limitations, the level of existing infrastructure and services, and other comprehensive planning considerations.

3.3 Rural

The Rural environment designation is proposed for shoreline areas characterized by intensive agriculture or recreational use, moderate land values, lower public and private capital investment, and/or some biophysical development limitations. The Rural designation is intended to protect agricultural land from urban expansion and to protect ecological functions, conserve existing natural resources and valuable historic and cultural areas in order to provide for sustained resource use, and achieve natural flood plain processes. Management policies promote agricultural activities while emphasizing limiting uses within the Rural designation to those which sustain the shoreline area's physical and biological resources.

3.4 Conservancy

The Conservancy environment designation is proposed for shoreline areas characterized by very low intensity land uses and low intensity water-dependent uses primarily related to natural resource use and diffused recreational development, relatively low land values, relatively minor public and private capital investment, and/or relatively severe biophysical limitations. The Conservancy designation is intended to protect, conserve and manage existing natural resources, ecological functions, and/or unique, valuable, aesthetic, historic, and cultural areas in order to achieve sustained resource utilization and provide recreational opportunities. The conservancy environment is also intended to protect environmentally sensitive areas which are not suitable for intensive use, such as steep slopes, flood prone areas, eroding bluffs, natural wetlands, and areas which cannot provide adequate sewage disposal. Management policies emphasize that uses permitted within the Conservancy environment should preserve the rural or natural character of the area, and that priority should be given to water-oriented uses.

3.5 Natural

The Natural environment designation is proposed for shorelines that are characterized by severe biophysical limitations, presence of unique natural, cultural, and/or aesthetic features, intolerant of intensive human use, and considered valuable in its natural or original condition. The Natural designation is intended to protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions. Management policies focus on the specific low-intensity uses permitted on Natural shorelines, and emphasize that such uses will only be allowed provided they do not result in significant adverse ecological impacts.

3.6 Aquatic

The Aquatic environment designation is proposed to protect, restore and manage the unique characteristics and resources of the areas waterward of the ordinary OHWM. Management focuses on maintaining ecological functions within the natural hydrographic conditions and to prevent degradation of water quality.

4 POLICIES AND REGULATIONS

The Shoreline Analysis Report evaluated existing conditions, with particular attention to ecological conditions, in the County’s shorelines. The overarching purpose of recording baseline conditions is to ensure that the adopted regulations achieve no net loss of shoreline ecological function. The report includes recommendations for translating findings into shoreline designations, SMP policies and regulations, and restoration strategies. Key recommendations for SMP policies and regulations related to no net loss goals are presented in Tables 4-1 through 4-3, with a brief description of how those recommendations are addressed in the proposed SMP.

Table 4-1. Implementation of key Shoreline Analysis Report general policy and regulation recommendations related to no net loss.

Report Recommendation Summary	Recommendation Implementation
<i>Archaeological and Historic Resources</i>	
There is not a need for additional regulations beyond those mandated by the SMP Guidelines.	N/A
<i>Critical Areas</i>	

Report Recommendation Summary	Recommendation Implementation
Review critical area regulations and adopt them into the SMP via reference or direct inclusion.	Critical area regulations specific to the shoreline environment were included into the SMP in Appendix B.
Evaluate existing critical area buffer protections to determine if they are sufficient to achieve no net loss of shoreline ecological function.	Buffers for Type S waterbodies are assigned based on their surrounding environment designation. This allows for higher protection (i.e., wider buffers) for environments with higher functioning shorelines such as natural and conservancy (150-foot buffers), while community and urban/industrial designations have narrower buffers (50-foot buffers) (SMP section 4.3). Additional critical areas regulations for shoreline jurisdiction are located in Appendix B.
Reassess regulations to assess if changes are needed to recognize existing shoreline conditions and to accommodate water-oriented uses consistent with no net loss of ecological functions (e.g., stream buffer reassessment).	Stream buffers for Type S waterbodies were changed to be environment designation-based and accommodate current shoreline uses while protecting ecological function (SMP section 4.3). Additional critical areas regulations for shoreline jurisdiction are located in Appendix B.
Review Wetlands regulations for consistency with Ecology’s latest guidance.	Wetland buffers are updated and consistent with Ecology’s latest guidance, included in SMP Appendix B.
<i>Flood Hazard Reduction</i>	
Per WAC provisions, the SMP should provide flexibility for developing and maintaining flood hazard reduction measures to protect or continue existing uses while maintaining no net loss criteria.	SMP section 4.4.6 includes provisions that: limit structural flood hazard reduction measures to areas landward of wetlands, conservation areas, and inter-related floodplain areas and to be constructed only when a need is scientifically demonstrated; place a high priority on vegetation preservation and restoration during development projects; and prioritize the allowance of channel migration.
<i>Public Access</i>	

Report Recommendation Summary	Recommendation Implementation
<p>Provide policies and regulations that facilitate implementation of public space plans, provide public access, discourage informal shoreline access points by creating formal public access opportunities, and promote visual access.</p>	<p>Section 4.4.3 of the proposed SMP includes provisions that prohibits the blocking, reducing, or adversely interfering with visual and physical public shoreline access and protects the rights of navigation and space necessary for water-dependent uses.</p>
<p><i>Shoreline Vegetation and Conservation</i></p>	
<p>Review existing protections and ensure special attention is given to measures that promote retention of shoreline vegetation, replacement of invasive vegetation with natives, and developing well-functioning shoreline processes.</p>	<p>SMP section 4.4.5 requires:</p> <ul style="list-style-type: none"> • Vegetation clearing be limited to the minimum necessary to accommodate the permitted use/development; • Mitigation for vegetation removal maintained over the life of the use/development; and • 2:1 mitigation ratio for any native tree removal.
<p>Consider developing environment designation specific buffer widths based on existing conditions.</p>	<p>Buffer dimensional standards for Type S streams in SMP section 4.3 are environment designation based and have widths from 50 to 150 feet.</p>
<p>Ensure vegetation provisions allow for preferred uses, particularly, agriculture, water-dependent or –related port developments, water-oriented uses, and public and recreation access.</p>	<p>Provision in SMP section 4.4.5 allow for the removal and selective pruning of trees and other vegetation to accommodate shoreline uses and visual access but require mitigation measures to ensure no net loss.</p>
<p><i>Water Quality, Stormwater, and Nonpoint Pollution</i></p>	
<p>Consider incorporating regulations to facilitate maximum implementation of TMDL plans and control the introduction of other 303(d)-listed pollutants.</p>	<p>SMP section 4.4.4 prohibits the release of oil, chemicals, other hazardous materials, solid and liquid wastes, and untreated effluent into or onto the surface, ground water, or the land.</p>
<p>Consider clarifying that the policies of the SMP are also policies of the Comprehensive Plan and apply outside of shoreline jurisdiction in relation to</p>	<p>This is not directly included within the SMP but is part of the Guidelines in WAC 173-26.</p>

Report Recommendation Summary	Recommendation Implementation
water quality, but the regulations apply only within the shoreline jurisdiction.	

Table 4-2. Implementation of key Shoreline Analysis Report shoreline modification recommendations related to no net loss.

Report Recommendation Summary	Recommendation Implementation
<i>Shoreline Stabilization</i>	
Ensure that proper reference is given to appropriate exemptions to Shoreline Substantial Development Permits found in the WAC related to “normal maintenance and repair.”	SMP section 4.7.6.B.16 exempts repair and maintenance from a Shoreline Substantial Development Permit subject to provisions “a” through “c” of the aforementioned section but does not exempt it from the other provisions of the SMP.
Ensure “replacement” and “repair” have standards and definitions consistent with the WAC and have clear thresholds so that applicants and staff know when requirements are met.	SMP section 4.7.6.B.15 has a clear definition for replacement and 4.7.6.B.16 provisions “a” through “c” outline thresholds and requirements needed to meet the substantial development exemption.
Should include policies and regulations that promote “soft” over “hard” shoreline stabilization measures through incentives.	SMP section 4.7.6 includes policies and regulations that: <ul style="list-style-type: none"> • Promote natural vegetation systems for bank stabilization whenever feasible; • Prohibit structural solutions unless calculated proof is provided for its necessity; and • Limits stabilization and protection works to the purposes outlined in 4.7.6.B.17 “a” through “f.”
Consider requiring a Conditional Use Permit for any new hard shoreline stabilization, at least in certain environment designations.	In the table contained in Section 4.2 “New hard stabilization” requires a Conditional Use Permit in natural, conservancy, and rural environment designations and requires a shoreline

Report Recommendation Summary	Recommendation Implementation
	permit in community and urban/industrial designations.
<i>Piers and Docks</i>	
Consider providing specific dimensional requirements for overwater structures associated with residential uses.	Due to the limited opportunities for private piers and docks because of the types of waterbodies within the county and the lack of private ownership in feasible areas, the County would prefer to rely on State and Federal regulations and permits for dimensional standards.
May not be appropriate to have defined dimensional requirements for commercial, industrial, and public recreational docks and piers but standards that emphasize mitigation sequencing to develop appropriate designs.	Dimensional standards for docks and piers are not included in the SMP. SMP section 4.6.6 includes provisions that emphasize the conservation and enhancement of water quality, fish, shellfish, and wildlife resources and habitats and that require the minimization and mitigation of all possible adverse environmental impacts from the implementation of docks and piers.
Should ensure repair activities are defined to include a replacement threshold so that applicants and staff will know when “replacement” requirements need to be met.	Because of the lack of a significant number of residential docks and piers in shoreline jurisdiction, the provision was deemed not to be necessary.
<i>Fill</i>	
Restoration fills that improve shoreline habitats, anchor LWD placements, and restores shorelines should be encouraged.	SMP section 4.7.4 requires a conditional use permit for all fill projects waterward of the OHWM except for ecological restoration.
Fills waterward of the OHWM to create developable land should be prohibited.	SMP section 4.7.4.B.7 prohibits fill that will result in significant damage to water quality, fish, shellfish, and/or wildlife habitat and/or adversely alter natural drainage and circulation patterns, currents, river flows, or significantly reduce flood water

Report Recommendation Summary	Recommendation Implementation
	capacities – which are the results of the creation of new land from fill actions.
<i>Breakwaters, Jetties, Groins and Weirs</i>	
Should clearly prohibit new projects including these structures except for water-dependent uses, public access, shoreline stabilization, or other specific public purposes per WAC 173-26-231(3)(d).	SMP section 4.7.2.B.1 prohibits these structures waterward of the OHWM except where necessary to support water-dependent uses, public access, shoreline stabilization, or other specific public purposes.
<i>Dredging and Dredge Material Disposal</i>	
Should consider providing standards as necessary so that dredging to maintain active navigation channels, moorage facilities, and docking areas on the Columbia River can continue	SMP section 4.7.3 includes provisions that allow dredging to be permitted for navigation, water-dependent uses, habitat improvement projects, the improvement of water flow or quality, mining, and public utilities projects in which there is a need.
The reuse of dredge material for the purposes of filling interstitial spaces in rip-rapped shorelines should be allowed.	SMP section 4.7.3 allows for the deposition of dredging materials, “to protect problems of material distribution adversely affecting fish and shellfish resources.” This includes filling interstitial spaces in rip-rap as it fits the above description.
Should consider prohibiting these actions other than for shoreline restoration, flood hazard reduction, and maintenance of existing legal moorage and navigation.	SMP section 4.7.3 prohibits dredging for the primary purpose of obtaining material for fill, construction, or beach feeding, except when the material is necessary for ecological restoration or for emergency shoreline stabilization and flood protection measures.
<i>Shoreline Habitat and Natural Systems Enhancement Projects</i>	
Consider incentives to encourage restoration projects.	Specific incentives to encourage restoration projects are not implemented in this section of the SMP.

Table 4-3. Implementation of key Shoreline Analysis Report shoreline use recommendations related to no net loss.

Report Recommendation Summary	Recommendation Implementation
<i>Agriculture</i>	
Policies should recognize the commercial and cultural importance of agriculture to the County.	Policies in SMP section 4.5.1 promote the continued viability of agriculture in the county and also aims to preserve agricultural land and allow diversion of water consistent with water rights, asserting agricultures importance and rights of use.
There does not seem to be a need for additional regulations beyond those mandated by the SMP Guidelines.	SMP section 4.5.1.B.8 states that, “a shoreline permit shall be required for all agricultural activities not specifically exempted by the provisions of RCW 90.58.030(3)(e)(iv).”
<i>Aquaculture</i>	
Ensure that any salmon recovery-related aquaculture activities are facilitated in the aquatic and appropriate upland environments.	SMP section 4.5.2 allows for permitted aquaculture within the county as long as water quality impacts are addressed and diseases cannot be transmitted to native aquatic life, which would allow for salmon recovery-related aquaculture activities.
<i>Boating Facilities</i>	
Regulations for the over- and in-water components should be developed to provide applicants with as much predictability as possible.	The SMP provisions in section 4.6.4 provide predictable expectations of boating facilities that prohibit net loss of ecological functions, must adhere to state and local health agencies, must be aesthetically compatible with existing shoreline features, and require mitigation for adverse development impacts.
Public access should be included as components of new marinas or expansions, where feasible.	SMP section 4.6.4.B.12, “Marina and boating facilities should be designed to accommodate public access and enjoyment of the shoreline location...”

Report Recommendation Summary	Recommendation Implementation
Commercial Development	
<p>Allow existing commercial uses to continue and identify criteria for where future commercial uses may be appropriate.</p>	<p>SMP section 4.6.1 does not prohibit the continued use or new development of commercial activities but encourages new commercial uses to be located in intensive use areas.</p>
<p>Consider incentives to attract water-oriented uses in appropriate locations along the shoreline.</p>	<p>The SMP policies in section 4.6.1 make it clear that commercial developments are preferred in areas zoned for commercial use and/or Community and Urban/Industrial Environments and in intensive use areas. Areas designated as Community and Urban/Industrial also have small buffer dimensional standards further encouraging new uses in these areas.</p>
<p>Where feasible, public access should be incorporated into commercial uses.</p>	<p>SMP section 4.6.1.B.5 requires resorts and commercial recreational developments provide public access to shoreline and water areas and requires other commercial developments provide public access to shoreline and ecological restoration as mitigation unless proven infeasible or unsafe.</p>
<p>Ensure water-dependent uses are not restricted by other regulatory setbacks/buffers.</p>	<p>SMP section 4.6.1 allows water-oriented commercial use and development consistent with the SMP.</p>
Forest Practices	
<p>Provide general policies and regulations for forest practices according to the SMP Guidelines.</p>	<p>SMP section 4.5.3 requires the adherence to the Washington State Forest Practices Act (RCW 76.09) and RCW 90.58.150.</p>
<p>SMP standards should apply to Class IV General Forest Practices within the County where shorelines are converted to non-forestry uses.</p>	<p>SMP section 4.5.3.B.2 requires that conversion of forest lands to other uses does not result in loss of shoreline ecological functions or significant adverse impacts to other shoreline uses and resources.</p>
Industry	

Report Recommendation Summary	Recommendation Implementation
Support the Port’s efforts to retain existing and attract new water-oriented industrial uses in appropriate locations.	SMP section 4.6.2 emphasizes the utilization of existing urban areas for industrial development and allows for port related activities to be permitted through condition use permits.
Recognize current industrial uses and consider incentives to attract water-oriented uses in appropriate locations along the shoreline.	Policies in SMP 4.6.2 prioritize water-dependent uses and buffer dimensional standards for more developed areas (Community and Urban/Industrial designations) to give new and existing industrial uses a clear incentive to locate and develop in these areas.
<i>In-stream Structural Uses</i>	
Regulations should accommodate anticipated new diversion structures, and repair/maintenance and possible expansion of existing projects.	SMP section 4.6.3 does not prohibit new diversion structures, or repairs and possible expansion of existing projects but does require them to protect and preserve ecosystem-wide processes, ecological functions, and cultural resources.
<i>Mining</i>	
Consider policies which emphasize locating new mining away from shorelines, floodplains, and streams.	SMP section 4.5.4 policies emphasize that mining should not be allowed in unique and fragile areas and that all measures should be taken to protect water bodies from mining impacts.
<i>Recreational Development</i>	
Should include appropriate provisions for existing and potential recreational uses.	SMP section 4.6.7 gives recreational development priority over other development types.
Ensure consistency between local, state, and federal parks departments’ shoreline policies.	SMP section 4.6.7 emphasizes the importance of maintaining shoreline recreational uses and ecological functions and does not infringe on present or future parks recreational uses.
Policies and regulations should provide clear preferences for shoreline restoration consistent with public uses.	Section 4.6.7.B.8 ensures that new shoreline recreational developments

Report Recommendation Summary	Recommendation Implementation
	will maintain, enhance, or restore shoreline features and functions.
New shoreline access should be located and designed to maintain ecological functions.	Section 4.6.7.B.1 protects natural features of the land and requires shoreline recreational development to adhere to the no net loss criteria.
<i>Residential Development</i>	
Residential development should control pollution and prevent damage to the shoreline environment.	SMP section 4.6.8 prohibits residential development from resulting in net loss of ecological function.
In areas of intense development, recognize current and planned shoreline residential uses with adequate provision of services and utilities as appropriate to allow for shoreline ecological protection.	Section 4.6.8.B.4 ensures sewage disposal and water supply facilities are provided in accordance with state and local health regulations. This section also requires the treatment of storm drainage in terms of water quality and quantity.
Ensure that new development, including the creation of new lots, would not require new shoreline stabilization.	Section 4.6.8.B.1 requires new residential development to be sufficiently set back from steep slopes and shorelines vulnerable to erosion so that shoreline stabilization is not required.
Incorporate clear dimensional criteria for residential development.	Buffer requirements and setbacks are contained in section 4.3 with all other dimensional criteria for residential development contained within the zoning code.
For residential subdivisions that create five or more lots, consider how to create public or community access opportunities to the shoreline.	This consideration was not incorporated into the SMP with detailed specificity in order to give more flexibility to the applicant.
<i>Transportation and Parking</i>	
Allow for maintenance and improvements of existing roads, railroads, and parking areas and for necessary new roads and parking areas.	Maintenance, improvements, and new projects for roads and parking areas are allowed as long as they have the least possible adverse effect on unique or fragile shoreline features and result in no net loss of shoreline ecological functions.
<i>Utilities</i>	

Report Recommendation Summary	Recommendation Implementation
<p>Allow for maintenance and improvements to existing utility facilities and consider locations outside of shoreline jurisdiction for new utility facilities.</p>	<p>SMP section 4.6.11 does not prohibit the maintenance and improvement of existing utility facilities but does require that the improvements preserve ecological functions, the natural landscape, and minimizes conflicts with shoreline uses.</p>

5 RESTORATION OPPORTUNITIES

The Shoreline Restoration Plan prepared as part of the SMP update will serve as a valuable resource for the County and its restoration partners to improve impaired ecological functions on the County’s shorelines. The plan provides a framework for restoration on all County shorelines outside of the cities of White Salmon, Bingen, and Goldendale. Restoration goals were developed from the County watershed planning efforts.

The plan focuses on restoration projects that are reasonably likely to occur in the foreseeable future. Potential restoration opportunities were identified based on recommendations in existing restoration planning documents, including the 2013 Klickitat Lead Entity Region Salmon Recovery Strategy, the Klickitat and White Salmon Subbasin Plans, Habitat Work Schedule; as well as input from County staff and restoration partners. The plan lists restoration and protection strategies, including opportunities for specific projects, for each of the County’s watersheds.

The plan provides an implementation framework by identifying existing and ongoing plans and programs as well as potential restoration partners at the federal, state, regional, and local levels. The framework builds on local and regional planning coordination among these programs and partners, identifying mechanisms for implementation including development incentives for restoration; landowner outreach and engagement; maximizing mitigation outcomes; and monitoring the effectiveness of restoration actions.

6 CUMULATIVE IMPACTS

The Cumulative Impacts Analysis evaluated the effects of foreseeable development under the proposed SMP and demonstrated that the goals, policies and regulations in the proposed SMP, combined with recommendations in the Shoreline Restoration Plan, will prevent degradation of ecological functions

relative to the existing conditions, as documented in the County's Shoreline Analysis Report.

The Cumulative Impacts Analysis determined that the proposed SMP provides a high level of protection to shoreline ecological functions. The report indicated that on its own, the proposed SMP, which includes the Shoreline Restoration Plan, is expected to protect and improve shorelines within Klickitat County while accommodating a limited amount of reasonably foreseeable future shoreline development, resulting in no net loss of shoreline ecological function.

Emphasis is placed on achieving no net loss of ecological function throughout the SMP, with all uses and modifications subject to general and/or specific standards addressing the preservation of water quality, water quantity, and habitat function in the shoreline, as well as basin-wide ecological processes. The following are some of the key features identified in the Cumulative Impacts Analysis that protect and enhance shoreline ecological functions to ensure that the no net loss standard is met.

- Shoreline environment designations were assigned to shorelines to minimize use conflicts and designate appropriate areas for specific uses and modifications (SMP Section 3).
- SMP Section 4 contains general policies and regulations designed to provide the basis for achieving no net loss of shoreline ecological functions, such as mitigation sequencing, critical areas and flood hazard regulations, and vegetation conservation standards. Additional critical areas regulations for shoreline jurisdiction are located in Appendix B.
- The critical area protection standards (SMP 4.4.1 and Appendix B) ensure that vegetated buffers are retained on wetlands, fish and wildlife habitat conservation areas (including all shorelines), and geologically hazardous areas.
- More shoreline uses and modifications are permitted in areas with higher levels of existing disturbance, and allowed uses and modifications are more limited in areas with lower levels of disturbance. Regulations prohibit uses that are incompatible with the existing land use and ecological conditions, and emphasize appropriate location and design of various uses.
- The Shoreline Restoration Plan identifies a number of project-specific opportunities for restoration on both public and private properties inside and outside of shoreline jurisdiction, and also identifies ongoing

county programs and activities, restoration partners, and recommended strategies and actions consistent with a variety of watershed-level planning efforts.

7 CONCLUSIONS REGARDING NO NET LOSS

The SMP update process has provided the opportunity to identify existing environmental conditions, anticipate future impacts to shoreline functions, and identify restoration opportunities within the County's shoreline jurisdiction. The Shoreline Analysis Report enabled the SMP update process to rely on current, comprehensive information on the shoreline environment. The Cumulative Impacts Analysis evaluated the effects of reasonably foreseeable development that may occur under the draft SMP. The Shoreline Restoration Plan identified planned actions and other opportunities to improve impaired ecological function in the County's shorelines. These elements facilitated the development of regulations that directly and fully consider the preservation of ecological functions in order to achieve no net loss.

Major elements of the SMP that ensure no net loss of ecological functions include: 1) shoreline designations; 2) general provisions; 3) shoreline use and modification provisions; and 4) the Shoreline Restoration Plan. Each of these elements were subject to an analysis of potential ecological impacts and developed with the goal of achieving no net loss of function and improving shoreline function where the opportunity exists.

Given the above, implementation of the proposed SMP is anticipated to achieve no net loss of shoreline ecological functions in Klickitat County.