

No Net Loss Report

For Okanogan County Shoreline Master Program

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Introduction

The Shoreline Management Guidelines require local shoreline master programs to include policies and regulations designed to achieve no net loss of ecological functions. The guidelines also require regulations and mitigation standards ensuring that each permitted development will not cause a net loss of ecological function of the shoreline. This no net loss report provides a summary of how this Shoreline Master Program and supporting documents will achieve the goal of no net loss. An inventory and analysis was performed by ENTRIX evaluated the current function of the shorelines in Okanogan County. This information informed the Characterization Report which summarizes current uses within the shoreline. The Cumulative Impacts Analysis evaluated the effects future foreseeable development under the proposed Shoreline Master Program will have on the function of the shoreline. The results show the goals, policies, and regulations will prevent future further degradation of the shoreline.

Shoreline Jurisdiction

The Shoreline Management Act of 1971 defines shorelines as all of the water areas of the state, including reservoirs, and their associated shorelands, together with the lands underlying them ;except shorelines of statewide significance; shorelines on segments of streams upstream of the a point where the mean annual flow is twenty cubic feet per second or less and the wetlands associated with such upstream segments; and shorelines on lakes less that twenty acres in size and wetlands associated with such small lakes.

Shorelands are defined as those lands extending landward for two hundred feet in all directions as measured on a horizontal plane from the ordinary high water mark; floodways and contiguous floodplain areas landward two hundred feet from such floodways; and all wetlands and river deltas associated with the streams and lakes which are subject to the provisions of this chapter. Any county or city may determine that a 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 two hundred feet therefrom.

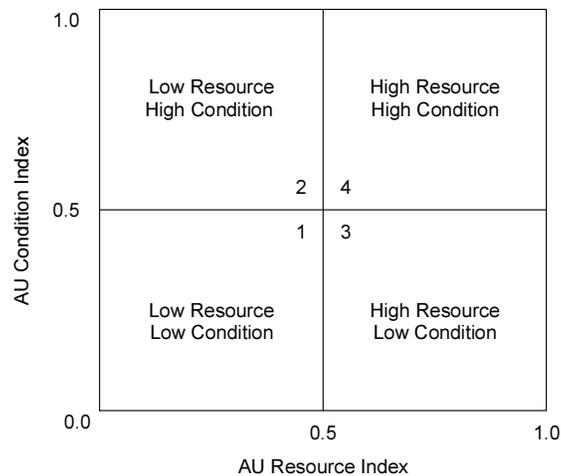
The county encompasses two major water resource inventory areas, the Methow WRIA 48 and the Okanogan WRIA 49. There are approximately 35,041 acres of shorelands governed under the Shoreline Management Act in Okanogan County, which includes shorelines of 31 streams and rivers and 44 lakes. Approximately 16% of the shorelands are within public ownership. The streams and lakes are within public and private land used for agriculture, forest, range, residential, and some light commercial uses.

Shoreline Inventory and Characterization Report

The Shoreline Inventory and Characterization Report was prepared by ENTRIX in support of the Okanogan County, Omak, Okanogan, Twisp, Winthrop, Pateros, Brewster, and Tonasket Shoreline Master Program updates. The report includes an inventory of the shoreline characteristics including resources and stressors. The information in the inventory was used to identify how and to what extent different shoreline areas are functioning at their natural capacity. This model was used to develop a scoring system for the different lakes and stream reaches. The results of the model then became the

basis for the policies, regulations, development standards, restoration plan, cumulative impacts analysis, and environment designations to be assigned.

The results developed a scoring system for the current ecological function of the rivers, lakes, and streams. The highest functioning scored a 4 having the best shoreline condition and the most resources within the reach. A score of three represents a high value for resources and low value for condition index shows that these areas may represent with higher levels of existing natural resources but have a low shoreline condition. These areas would benefit from planning activities that increase or enhance those limiting ecological functions association with the condition of the shoreline. A score of two represents low amount of resources and a high condition index. This means these areas are relatively intact shoreline condition but lower natural resources. These areas would benefit from resource enhancement activities.



An area that has a high resource and high condition value has a high level of current ecological function. These areas were designated as Natural or Conservancy in order to maintain the existing ecological function. Areas that have a high condition and low resource these areas are less impacted by human activities and will be maintained and conserved. These areas were designated mostly conservancy. High resource and low condition areas may represent opportunities for restoration by minimizing or removing environmental impacts. These areas were designated mostly rural and have a lot of existing and ongoing agricultural activities. Areas that have a low condition and low resource indicate that the remaining functions are low and likely missing key elements necessary. These areas were designated mostly rural on the rivers and shoreline residential on the lakes.

The following describes the purpose of each Shoreline Designation:

- The purpose of the Natural Designation is to protect those shoreline areas that are relatively free of human influence or that include intact or minimally degraded shoreline functions intolerant of human use. These systems require that only very low intensity uses be allowed in order to maintain the ecological functions and ecosystem-wide processes. Consistent with the

policies of the designation, Okanogan County should include planning for restoration of degraded shorelines within this environment.

- The purpose of the Conservancy Environment is to protect ecological functions, conserve existing natural resources and valuable historic and cultural areas and provide recreational opportunities on public lands and properties that are bound by a recorded conservancy easement in a trust or governmental control limiting potential uses on the site for environmental and stewardship purposes.
- The purpose of the Rural Designation is an area where there exists land capable of supporting cultivated and irrigated agriculture with associated activities as well as low intensity residential development and recreational uses.
- The purpose of the Shoreline Residential Designation is to accommodate residential development outside of existing cities consisting of the infill, development, or redevelopment of existing commercial, industrial, residential, or mixed-use areas, whether characterized as shoreline development, villages, hamlets, rural activity centers, or crossroads developments that are at a density or intensity greater than allowed in rural areas.
- The purpose of Urban Conservancy Designation is to protect and restore ecological functions of open space, floodplains, and other sensitive lands within incorporated municipalities or City Expansion Areas, while allowing a variety of compatible uses.

Cumulative Impacts Analysis

The cumulative impacts analysis was conducted to ensure the Shoreline Master Program's policies and regulations will achieve no net loss of ecological functions as the SMP is implemented over time. The analysis describes foreseeable future development and assessed the cumulative impact of such development.

Reasonably foreseeable future development was studied by conducting a buildout analysis. Each parcel within Shoreline Jurisdiction was analyzed to see if the parcel was already developed. If the parcel was it was given a 1. The zoning was intersected with the shoreline parcel layer and analyzed to see if the parcel size met the minimum zoning requirements. If the parcel was legal pre-existing and already developed it was not considered further developable. The parcels owned by federal and state government that did not have parks and boat launches, etc. were considered not further developable.

Each water body was buffered by the amount required within the shoreline designation. The buffer acres of buildable parcels were summarized per group and subtracted from the total buildable acres. In the Methow Review District zoning structures for human habitation are not allowed within the 100 year floodplain. The floodplain area was calculated in this zone and subtracted from the buildable acres. Wetland areas inside shoreline jurisdiction but outside the aquatic waterbodies were calculated per group and subtracted from the total buildable acres.

This left the total potential future developable acres in the last column. Taking into consideration the summary of future impacts and impacts to shoreline processes with the regulations being proposed. The majority of the proposed shoreline jurisdiction will not see much increased development. Some key issues came out of the cumulative impacts analysis.

Table 1: Key issues identified during development of CIA assessment, and revisions to the draft SMP.

Issue	SMP Revision
SMP did not adequately address Channel Migration. Channel migration is a natural riverine process, but it can be hazardous to people and structures.	Channel Migration regulations have been added to section 14.15.110(C)(6). New structures will have to demonstrate with a geotechnical analysis that the proposed development will be safe from channel migration.
SMP did not adequately address vegetation retention outside of shoreline and critical area buffers, but still within shoreline jurisdiction.	Section 14.15.200 was updated to remedy this by placing limits on the amount of clearing and grading you can do within Shoreline Jurisdiction by designation.

Table 3 Major Comments Received

Comment	Response
The 200 foot minimum for development should be maintained without obstruction to wildlife migration.	Comment noted. The 200 foot minimum is being confused with the shoreline setback. 200 feet from the ordinary high water mark is the shoreline jurisdiction boundary. The proposed shoreline master program will have a variety of required setbacks based on the shoreline designation derived from the inventory and analysis. These distances range from 25 to 150 feet for development.
The draft allows subdivision within the shoreline areas of Conservancy, Natural, and Rural designations. Development will need to meet the setback criteria in each zone but they are minimal. Especially the rural designation which is the largest in the County. (SEPA Attachment I, January 28, 2015)	Comment noted. Yes the draft allows subdivision in the shoreline. The lots will need to be configured with the appropriate designation required frontage and lot size will be dictated by the underlying zoning. The rural designation is the second largest designation encompassing 10887 acres while Conservancy is the largest with 16088 acres
There is little guidance as to how no net loss will be achieved for residential development.	Comment noted. No net loss will be achieved by a variety of tools with the proposed Shoreline Master Program such as Vegetation Conservation, Protection of Critical Areas, and Setbacks within Shoreline Designations, Voluntary Restoration, and Mitigation. A No Net Loss Report is contained within the Shoreline Master Program in Appendix E.

<p>The draft SMP dramatically changes the procedures for identification and protection of critical areas within Shoreline Jurisdiction 14.15.110.</p>	<p>Comment noted. Critical areas will be regulated and protected under the proposed SMP in section 14.15.110.</p>
<p>The plan allows residential development or subdivision within the shoreline area of Conservancy, Natural, and Rural Designations without a sufficient level of scrutiny in the permitting process.</p>	<p>Comment noted. Residential development such as subdivisions will have to go through their respective processes in accordance with RCW 58.17, RCW 43.21C, WAC 197-11, etc. but will also have to meet the requirements in the Shoreline Master Program for lot frontage, configuration, critical areas including demonstrating that shoreline stabilization will not be required throughout the life of the development, and Okanogan County Code Chapter 16, etc.</p>
<p>Language under 14.15.110E(3) should include requirement to delineate floodway and Channel Migration Zones in addition to 100 year floodplain.</p>	<p>Comment noted. There is a requirement for subdivision applications to indicate the boundary of the floodplain in Okanogan County Code Title 16. Channel Migration has been added to this SMP under 14.15.110(G)</p>
<p>Do not want fences to the OHWM. Fences could extend to the Ordinary High Water Mark and apparently also line the river along the OHWM interfering with recreational traffic on the rivers when the water is at or above OHWM. There is no provision to make the fences wildlife friendly.</p>	<p>There is no current prohibition about fences. You may have seen the many fences used in restoration areas often to keep wildlife out. In agriculture areas, fences may be used to restrict access by livestock to dangerous or particularly sensitive areas. Property owners may fence to the river or lake for security and privacy purposes. To date this has not been the cause of any loss of wildlife access and particularly deer access to riparian areas.</p>
<p>Do not agree with the changes in setbacks. Substantial increases in the amount and types of development allowed. Definitions of buffers and setbacks need clarification in relation to vegetation conservation. Failure to delineate floodway and Channel Migration Zones. Reducing setbacks will increase the amount of damage that can be caused by flooding and erosion in Channel Migration Zones.</p>	<p>Comment noted. The current residential setback for all designations is 50 feet. The setback then was not based on an inventory and analysis. We now have a complete inventory and analysis which describes the functionality of each segment of shoreline. This information was used to place the designation as well as establish the setback distance for structures. SEE 14.15.120 Vegetation Conservation areas are regulated within 14.15.130. Channel Migration Areas are included in the inventory and analysis in Appendix A. Channel Migration is regulated under Geologically Hazardous Areas as defined in 14.15.090 and regulated under 14.15.110.</p>

The proposed draft reduces protections for critical areas.	Critical areas are protected under section 14.15.110.
Businesses rely on the natural beauty. You are undermining small tourism business with this proposal.	the Shoreline Management Act looks to achieve a balance that recognizes environmental protection, the rights of navigation and the ability to foster all appropriate uses, with the environment and navigability concerns given due consideration. RCW 90.58.020 and implementing guidelines at Chapter 173-26 WAC, and particularly subsections 171 and 186 on guidelines and other considerations.
Residential development of 1 unit per acre or less will have significant impact on the potential for groundwater contamination and water availability.	Comment noted. Residential Development within the shoreline environment will be dictated by designation as to how much frontage they have and required setbacks. The underlying zoning will dictate lot size subject to the SMP requirements and the no net loss requirements for ultimate approval . See section 14.15.120.

The Cumulative Impacts Analysis concludes that the draft SMP will be effective in preventing impacts to the shoreline functions within Okanogan County. If substantial revisions are made to the Draft SMP, the analysis will be revised.

Restoration Plan

A Restoration Plan was submitted as part of the Okanogan County Shoreline Master Program update process. The restoration plan serves as a framework for the County to identify and implement opportunities to improve impaired ecological functions. The restoration plan contains the following elements:

- From the inventory and analysis areas were identified with a low condition and high resource which represents the most suitable areas for restoration. These have been mapped in Appendix G.
- Identification of techniques that are available for shoreline restoration by focusing on enhancement of natural functions.
- Identification of Existing efforts and ongoing programs
- Identification of Funding sources
- Identification of Incentive programs such as the Open Space Taxation Act.
- Implementation and Monitoring

The restoration plan is voluntary however; the identified areas could be used to offset unavoidable impacts in order to achieve no net loss of ecological function. The inventory and analysis has identified areas where the most ecological function will be gained by restoration activities.

The monitoring portion of the restoration plan will track what restoration activities have occurred and whether restoration projects resulted in the state goals and objective of maintaining no net loss. If this standard is found to not be met the County will be required to take corrective action to achieve no net loss. Every seven years the County will review the environmental conditions and restoration objectives to see if the ecological processes and functions that are found to be worsening may need to become an elevated priority in order to prevent loss of critical resources.

Conclusions

The baseline conditions indicate that overall Okanogan County's Shorelines are functioning at a high level. The inventory was essential to establish the baseline scientific information in order to develop the designations, policies, and regulations. The cumulative impacts analysis revealed a couple of areas that needed revised regulations in order to achieve no net loss. These areas were Channel Migration and vegetation conservation outside the buffer/setback areas. The draft was revised to include management of these areas. The Shoreline restoration plan identifies potential restoration areas, funding resources, and incentive programs to coordinate restoration activities on the shorelines of the state. There is also a method to track the future restoration activities and review the ecological gain over time to verify if Okanogan County is meeting the no net loss objective.

References

- Entrix, Inc., 2008. Okanogan County Shoreline Characterization Report: 39Pp +App. Olympia, WA.***
- Okanogan County Shoreline Master Program Update: Restoration Plan Draft. Okanogan county Shoreline Master Program Update.***
- Okanogan County Shoreline Master Program Update: Draft Cumulative Impacts Analysis (Revised January 2015). Okanogan County Shoreline Master Program Update.***
- Okanogan County Draft Shoreline Master Program June 2015. Okanogan County Shoreline Master Program Update.***
- Washington State Department of Ecology. 2010. SMP Handbook chapter 4: No Net Loss of Shoreline Ecological Functions. Olympia, WA.***