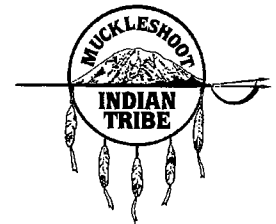




**MUCKLESHOOT INDIAN TRIBE**  
**Fisheries Division**

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February 17, 2009

Mr. David Pater  
WA Dept of Ecology  
3190 160<sup>th</sup> Avenue SE  
Bellevue, WA 98008

**RE: City of Redmond's Shoreline Master Program Update**

Dear Mr. Pater:

The Muckleshoot Indian Tribe Fisheries Division has reviewed the proposed Shoreline Master Program (SMP) Update for the City of Redmond. Specifically, we reviewed the shoreline characterization report; the shoreline policies; the Comprehensive Plan changes; the shoreline and development regulations; and the various maps that reflect the SMP update. Attached you will find our comments in the interest of protecting and restoring the Tribe's treaty protected fisheries resources.

As I indicated in my voicemail, for whatever reason, the Tribal Fisheries Division was not given an opportunity to review these materials prior Ecology's notice for this SMP update. We appreciate the opportunity to comment and look forward to working with Ecology and the City to resolve our concerns.

Thank you,

Karen Walter  
Watersheds and Land Use Team Leader

Cc: Cathy Beam, City of Redmond Planning Department

The following comments correspond to specific documents or maps and are referenced by page numbers where applicable.

### **I. Shoreline Characterization Report**

1. Section 2.1.5, page 9- Redmond should be using the most current version of Ecology's stormwater management manual to manage stormwater.
2. Section 3.3.3, page 28- It would be useful if the City provided a map showing its stormwater facilities. Other jurisdictions have done this as part of their SMP update.
3. Section 3.6.1, page 37- Ecology no longer uses a "class-based" system for State Water Quality Standards; rather the agency is now using a "used-based" system. This subsection should be rewritten accordingly.
4. Section 3.6.2, page 38- The section on pollutants should include all available water quality data, including a map of the shoreline sections listed under the State's 303(d) list.
5. Section 3.6.3, page 38- Sedimentation is one problem affecting salmon habitat, it is not the sole problem. The statement "sedimentation from erosion is one of the most significant limiting factors in salmon production areas" should be supported with data. Also, the City's Erosion Hazard Areas show few areas along streams and rivers within the Shoreline Management Zone, which suggests that unmanaged stormwater runoff is the source of the problem versus natural erosion processes.
6. Section 4.4, page 41- Large and small woody debris is also recruited as a result of bank erosion, flooding, windstorms and ice/snow damage. Wood also creates pools and lower velocity habitats and entrains sediment. This subsection needs to be expanded to fully discuss the role of wood and how wood is recruited to streams, rivers, and lakes.
7. Section 4.5.1, page 43- The Streams Classification Map shows more than 2 streams flowing to Lake Sammamish within Redmond's jurisdiction.
8. Section 4.5.1, page 45- The City should model and map the future floodplain conditions as part of its Comprehensive Floodplain Plan. This information should also be incorporated into the SMP.
9. Section 4.7, page 56- The bullet for "stream flow" should correctly identify that the stream flow conditions limiting salmon production are less water in the summer and fall and more water in the winter and spring than existing historically. The items discussed in this bullet actually reflect fish access and not stream flow conditions. The bullet should be rewritten to reflect these two different types of limiting factors that are found within Redmond.

As for high water temperatures, the statement does not fully acknowledge the problem. Water

temperatures in the Sammamish River are well within the range documented to cause lethal and sublethal impacts to adult salmon, especially sockeye and ESA listed chinook because of their run timing. Chinook and sockeye migration in the Sammamish River begins in August and coincides with temperatures documented to have both lethal and sub-lethal effects. Sublethal effects may include migration delays; increased depletion of body fat reserves; disorientation; egg retention; production of abnormal embryos or alevins; high fry or alevin mortality; increased vulnerability to disease of adults and offspring and other physiological problems. Prior to spawning, adult chinook salmon spend a considerable amount of time exposed to thermal stress in the Sammamish River. Radio- tagged chinook spent an average of 7 days in 1998 and 9 days in 2000 in the Sammamish River; although some individuals held in the River for 31 days. Temperatures above 21 degrees Celsius are reported equal to or exceed lethal temperatures for chinook. Pre-spawning mortality of adult salmon was documented by the Tribal Fisheries Division and Federal fisheries agency biologists in the Sammamish River in 1998 and in 1999. The importance of protecting cool groundwater and tributary inflows into the Sammamish River and protecting and increasing riparian shade along all shorelines cannot be overstated given current shoreline conditions and warming trends associated with climate change. Please see <http://green.kingcounty.gov/wlr/waterres/streamsdata/reports/sammrivercorridoractionplan.htm>. We can provide additional citations for the above information upon request.

Bear Creek also has temperature problems; hence its listing on the current 303(d) water quality limited list and Ecology's on-going efforts to complete a Total Maximum Daily Load (TMDL) for this stream.

11. Table 7, page 58- Puget Sound steelhead, including all steelhead in WRIA 8 are listed as threatened under the Endangered Species Act. Kokanee are also proposed for listing. The Table should be updated.

12. Section 5.1.4, page 61- The Streams Classification Map shows more than 2 streams flowing to Lake Sammamish within Redmond's jurisdiction.

13. Section 5.2.2, page 63-See previous comments regarding water temperatures in the Sammamish River.

14. Section 5.2.5, page 65 –This section should discuss the numerous culvert barriers along the Sammamish River where tributary streams flow into the mainstem. Many of the barriers are associated with the two parallel trails and should be repaired to provide fish passage.

14. Section 5.3.2, page 68– See previous comments regarding water temperature in Bear Creek.

15. Section 5.3.5, page 70 –The statement regarding hatchery or wild origin salmon is incorrect and should be updated based on the current information available in the State's Salmon and Steelhead Inventory (SaSI).

## **II. Shoreline Master Program Policies**

1. Please clarify the designation for the aquatic areas of Bear and Evans Creeks and the Sammamish River. Only Lake Sammamish has an "aquatic" environment designation.

2. Please explain why Policy SL-1, Aquatic Environment, should not apply to Bear and Evans Creeks.
3. The policies are too limiting in that scientific research is only allowed in the Natural Environment designation, which is limited to a portion of Bear Creek and a very small portion of Evans Creek. There is no such designation for the Sammamish River; therefore, it is not clear if scientific research and equipment would be allowed in the Sammamish River, including, but not limited to temperature probes.
4. As currently drafted, none of shoreline environments allow aquaculture. This is a problem as there may be a need to supplement or manage the existing freshwater clams and mussels as well as create rearing ponds, egg boxes, etc. with hatchery cultured salmon. The SMP should be modified.
5. Several policies use the word "encourage" instead of "should" or "shall" which weaken the policies and limit the likelihood that the policy will be fully implemented. For example, on page 14, Policy SL-9 states "*Encourage strongly the use of alternatives to bulkheads.*" Stronger language should be used instead.
6. Policies SL-12 through SL-15, Page 14- there needs to be a policy that requires the repair/replacement of all existing fish blockage culverts in the regulated shoreline areas to provide fish passage.
7. Policy SL-16, Page 15- Native plants should be required to be used in all shoreline areas to restore functions, reduce water and herbicide/fertilizer uses.
8. Policy SL-24, Page 17- The proposal to continue to allow trails, particularly linear trails, within the regulated buffer of the Sammamish River will likely limit the habitat recovery efforts and water quality standard compliance needs because these facilities permanently reduce the opportunity to restore large trees needed to provide wood and shade to the Sammamish River. The policy should be revised to require trails to be located outside of the regulated buffer with a limited number of viewing platforms.
9. Policy SL-27, Page 18-This policy is broadly written and does not specify the amount of buffer reduction that could occur and the amount of planting required along the Lake Sammamish shoreline.
10. Policy SL-59, Page 31- This policy is weakly worded. New developments seeking moorage should be required to have joint use docks.
11. Policies SL-72 and SL-73, Underground utilities often result in vegetated corridors consisting of grasses and/or non-native vegetation. Underground utilities should be required to demonstrate that areas outside of the shoreline and its regulated buffer are not available for the location of utilities. If underground utilities must be located with the regulated shoreline area, then they should be required to fully mitigate for their impacts, including the potential to restore offsite areas if the utility corridor cannot be fully revegetated with native trees.

### **III. SMP Update Definitions (to be added to RCDG 20A.20)**

1. The definition of large woody debris should be modified by adding the commonly used scientific

definition or "any piece of wood that is at least 10 cm in diameter (midpoint) and is at least 2 m in length". See <http://water.washington.edu/Outreach/FactSheets/lwd.pdf> for more information.

2. The definition of significant tree is confusing. It is not clear if a tree needs to be 6 inches in diameter at breast height (DBH) or 4 inches at DBH. We recommend that this definition be set at 4 inches at DBH based on the scientific definition of wood above.

#### **IV. Shoreline Regulations**

1. The Muckleshoot Indian Tribe Fisheries Division (MITFD) requests that the City's shoreline regulations be modified to require notification to the MITFD of all proposed shoreline actions and activities within the City so that we can review these proposals and provide any comments necessary to protect and restore the Tribe's treaty protected fisheries resources. Section 20D.150.200, Shoreline Administration and Procedures, should be modified to require notice given to the MITFD.

2. In our review of 20D.150.50-030(a) and (b), Uses and Activities in Shoreline Environment, it appears that culverts, an in-water use as defined in the Definitions, would not be allowed in any shoreline environment. Tribal fishing may also not be allowed as it is not necessarily listed in Footnote 1. Please clarify.

3. Table 1- We have several comments as noted below.

- Aquaculture should be allowed in natural and urban conservancy shorelines as these designations apply to the Sammamish River, Bear and Evans Creek for the reasons noted above.
- Table 1 may conflict with 20.D.150.50-030(a) and (b); see previous comment regarding culverts.
- The scientific research is allowed in all shoreline environments in Table 1 (which is good); but may conflict with the Shoreline Policies. See previous comments.

4. 20D.150.60-010(3)(a), Shoreline Buffers, page 16- This regulation should require that underground utilities demonstrate that there is no other upland location for them and if located within the shoreline buffer that they fully mitigate their impacts including permanent loss of fully functional buffer with trees. Stormwater conveyance systems should also be required to fully mitigate their impacts if located within shoreline buffers.

5. 20D.150.60-010(4), page 16- Properties that redevelop in shoreline buffers should be required to restore the shoreline buffer.

6. 20D.150.60-010(5), page 17- Please explain the significance of the date of January 1, 2003 for uses in the High Intensity/Multi-Use shoreline designation.

7. 20D.150.60-020 Lake Sammamish Setback, page 17- Please explain why "new development adhering to the 35-foot setback and/or reconstruction that involves greater than 50% the value of existing

improvements" is only required to plant 50% of the area in the minimum 20 foot building setback with native vegetation.

8. 20D.150.70-030 (2)(d), page 18- Marinas should not be allowed on the Sammamish River.

9. 20.D.150.70-040(5), page 19- Intake pipes could be considered in-water structures and should not be made fish passable. They should be screened to avoid impacting fish consistent with the Washington Department of Fish and Wildlife's Screening Guidelines.

10. 20D.150.70-050 (12)(b) Piers, Docks and Floats, page 24 – The requirement for all piers and docks to allow 50% light passage is less than WDFW's requirement that docks have at least 60% light passage. The SMP should require the higher standard.

11. 20D.150.80-030 (6)(f) Design Requirements for Shoreline Protective Structures, page 30. The requirement to use rounded rock/gravel suitable for use by spawning salmon and steelhead for toe protection may not be sufficient to support the weight of the larger rock required on the face of the structure. Spawning gravel could be added on top of the toe rock as a mitigation measure for the rock toe or wood could be added, depending on the location and substrate conditions.

12. 20D.150.110-010(1)(c), Tree Protection, page 35. If trees equal to or greater than 4 inches in DBH must be removed from the shoreline buffer, then these trees should be placed into the affected waterbody as mitigation for the loss of future wood recruitment. Alternatively, these trees could be made available for future restoration projects. This action is necessary to achieve a "no net loss" of future wood recruitment.