

M E M O R A N D U M

To: Oregon Stream Protection Coalition
From: Richard Fitzgerald
Subject: SSBT Issues
Date: June 2, 2015

In consideration of prospective riparian retention rules to address effects of timber harvest on stream temperatures, the Oregon Board of Forestry is considering applying enhanced stream buffers to “Salmon Steelhead and Bull Trout” bearing (SSBT) reaches only. It is not yet clear how ODF would determine which portions of which streams such new buffer rules would apply to. ODF may attempt to apply its current rules and guidance for determining the extent of fish use to determining SSBT distribution. This memo briefly summarizes concerns with doing so and makes recommendations for consideration during rulemaking.

Under current rules and guidance, ODF determines the extent of fish use based on the location of natural passage barriers or field surveys. If field surveys have not been conducted for a reach, ODF designates fish use as continuing upstream from the point of known fish use to the first natural barrier to fish use. If a field survey shows that fish use ends at a natural barrier or at some other point that is not an artificial barrier to fish passage, ODF designates fish use based on the survey. If field surveys show that fish use ends at an artificial barrier, ODF will designate fish use as continuing upstream to the first natural barrier. In practice, surveys are infrequently conducted and the districts assess extent of fish use independently, some relying more heavily on field investigation and others more heavily on GIS modeling. A substantial number of stream reaches remain unclassified. The significant implications of potential no-harvest buffer rules strongly suggest the need for detailed rules and agency guidance to ensure credible and consistent implementation.

- **ODF should rely on an authoritative published spatial database for implementing SSBT rules.** Current rules require ODF to maintain a map depicting stream classifications, which includes the extent of fish use. In practice, this “map” is a spatial database reflecting classification and other reach attributes. A similar approach to SSBT rules is appropriate to ensure consistency and inform stakeholders and the public. Such a database should 1) be developed from the best available data from any credible source, 2) presume that SSBT are present from known current or historic occupied reaches upstream to a permanent complete natural barrier, 3) rely on professional experts, 4) be readily updated in response to new information, and 5) be readily available to the public. The best available data would likely be ODFW distribution data augmented by ODF natural barrier and extent of fish use data.

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- **Current rules and guidance for determining natural barriers without surveys will not accurately determine the extent of SSBT distribution.** While current rules define a natural barrier, this definition lacks sufficient detail to guide case-specific determinations. ODF guidance describes criteria for identification of natural barriers by physical inspection, map, or digital elevation modeling. But these criteria are unreliable for determining SSBT distribution because they fail to account for SSBT use of marginal habitats and for changes that occur over time in channel form, substrate, and the effects of large woody debris accumulation. To ensure that buffers are properly applied to SSBT streams, new rules or guidance must specify appropriate criteria for identification of permanent complete natural barriers.
- **ODF's current fish survey protocol lacks the rigor necessary to ensure reliable data.** ODF's current field survey protocol lacks adequate minimum criteria and does not account for temporal variability in fish distribution. The protocol lacks specific criteria for surveyor qualifications, sampling effort, survey timing, or the extent of sampling effort. Its descriptions of appropriate methods are extremely vague. In order to ensure that survey-based determinations of the extent of SSBT distribution are reliable, new rules or guidance must specify minimum criteria for surveyor qualifications, sampling effort, and spatial extent. Such surveys should also meet ODFW standards for distribution mapping. To account for changes in SSBT habitat conditions or other circumstances, rules or guidance should limit the extent of time that a survey may be relied on to determine that SSBT are absent from a reach. In other words, survey results should have expiration dates.
- **ODFW's fish distribution maps were not developed for this purpose.** ODFW data is based on various source materials, some of which reflects observations or opinion rather than an empirical determination of an upstream limit of species distribution. ODFW data was developed principally in response to Columbia Basin needs and has incorporated data outside of that basin opportunistically. As such ODFW data may reflect an uneven intensity of investigation. As such, ODFW distribution data alone is not a reliable basis for determining the bounds of SSBT distribution. This point is illustrated by the fact that ODF, when conducting its GIS analysis of area encumbered by potential rules, relied on its own stream classification database to determine the upstream extent of fish use.
- **Current rules hinder consideration of the best available information.** Under current rules, only persons with a property interest in lands adjoining the stream and state resource agencies may request that ODF modify a classification of that stream. This may preclude or hinder consideration of the best available information, such as information submitted by unbiased experts.
- **Determining "winter-only" habitat will be difficult and of limited value.** Such streams are likely to be extremely rare, as rearing steelhead are often found in lower "migratory" reaches and,

in wetter years, may occupy upstream reaches that typically dry up in midsummer. Even where such streams exist, an absence of shade buffers may adversely affect quality of adjacent reaches occupied beyond winter.

- **Custody of fish distribution data.** It may not be appropriate for ODF to maintain a dataset reflecting the distribution of fish species. Due to agency responsibility and expertise, it is most appropriate that ODFW maintain an SSBT database. There is precedent for state agency reliance on ODFW distribution data for regulatory purposes. ODF has expressed concern that ODFW does not currently provide rapid data updates. Rapid data updates may be important in order to allow ODF to classify an unknown stream during review of an operations notice or written plan. ODFW may also benefit from live-update capability, but funding and resources to do so are uncertain. A solution may be for ODF to fund ODFW to maintain and update the relevant fish distribution maps while ODFW retains direction over the mapping program and its personnel.
- **This memo does *not* endorse the SSBT-only approach to temperature protection rules.** The comments and recommendations made herein are offered in light of a Board decision to take an SSBT-only approach to protecting stream temperatures from the effects of timber harvest. Even if the Board were to adopt rules that fully address the issues raised above, such rules would not address the broader deficiencies of an SSBT-only approach.