



## **BEFORE THE BOARD OF FORESTRY**

*Statement of Mary Scurlock, Oregon Stream Protection Coalition*

*Agenda Item 7: Riparian Rule Analysis*

*3 June 2015*

My name is Mary Scurlock, and I represent the Oregon Stream Protection Coalition's 23 fishing industry and conservation member groups<sup>1</sup> united in support of stronger, science-based riparian protection for streams on Oregon's over 10.6 million acres of private forestland. We share the common goal of a stronger regulatory baseline to ensure the long-term health of freshwater ecosystems and the multitude of economic benefits they support, including but not limited to saw timber and wood fiber.

### **I. RECOMMENDATIONS**

The Board has in hand adequate information to recommend increased riparian protection on small and medium streams in Western Oregon. Based on our evaluation of the information developed by the Department, we have the following recommendations:

Buffer Size: We recommend that the Board propose at least a 100 foot no-cut riparian management area. We would also support an additional variable retention option that analysis shows performs to at least this level of compliance with the PCW.

Geographic and Stream Extent: The expanded buffer should include all small and medium fishbearing streams in all ecoregions of Western Oregon including the Siskiyou, with a commitment to propose appropriate commensurate protection from harvest-related stream warming for small and medium fish streams in Eastern Oregon and on nonfish streams statewide within 12 months.

### **II. RATIONALE**

#### **A. Alternatives that ODF's modeling does not show, or cannot be used to show, that the PCW is met with at least the target frequency should be eliminated from consideration**

In order to provide a rational basis for the Board's policy choices and accountability to the public for its decisions, ***only those alternatives susceptible to quantitative evaluation of effectiveness should be considered.*** As the Department notes, this leaves only the 90' and 100' no cut buffers and the state forest FMP prescriptions, for which the predictive modeling found that the PCW was likely to be met 50% or more of the time. We note that the Department's analysis shows that the PCW would be met 100% of the time with a 120

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<sup>1</sup> Coalition members are: Audubon Society of Portland, Cascadia Wildlands, Coast Range Association, Defenders of Wildlife, Institute for Fisheries Resources, Native Fish Society, Sierra Club, Oregon Wild, Pacific Rivers Council, Wild Salmon Center, Center for Biological Diversity, Northwest Sportfishing Industry



foot no cut, which is apparently not being considered because it is outside the “bookends” established by the Board before any quantitative analysis had begun. [The Department’s 170’/275 ft<sup>2</sup> of basal area came in at .33 – so it seems that with a higher basal area retention the effectiveness of this type of approach could be improved].

Site-specific alternative buffer prescriptions can always be evaluated and applied by landowners under the current rule framework enabling State Forester approval of a plan for alternate practices. OAR 629-605-0100. But it should be recognized that support for such practices will still need to be have a science-based rationale outlining how these prescriptions would lead to less environmental harm – and findings like “it is possible” that “somewhat more shade than that of FPA” would be retained would still not be sufficient. (See e.g. page 10 of Attachment 1, Agenda Item 7 for today relative to the RFPC-B and AOL-B/OFIC-C).

**B. Buffer size: public policy dictates that the Board should strive to meet the PCW more than just 50% of the time**

The Board has the duty and the discretion to select alternatives that provide a high degree of certainty resource protection objectives will actually be met. *The Board’s duty to select the least burdensome alternative should not be confused or compete with the Board’s duty to select an alternative that meets resource objectives (e.g. the PCW and other goals) with adequate certainty.*

ODF modeling illustrates that at least a 100 foot no cut is needed to provide adequate certainty that the PCW will be met with sufficient frequency to be considered “compliant” with the criterion. A 100 foot buffer translates into an average warming of .18 degrees, which according to the box translates into meeting the PCW about 80 to 85% of the time. (Pers. Comm. J. Groom, ODF, 2 June 2015).

At least a 100 foot buffer also is needed to have a significant chance of meeting the stream warming limitations set for much of western Oregon under TMDL water quality restoration targets which are part of Oregon’s water quality standards for stream temperature.

Although the modeling shows that a 90 foot buffer would likely limit warming to .29 degrees C on average, this allows too much uncertainty that warming will be prevented because the .3 limitation will only be attained slightly more than 50% of the time, meaning that about half the sites will exceed the standard. *This is not an acceptable level of risk take with public natural resources.*

The 100 foot buffer would not only provide a more reasonable, science-based level of certainty that the stream warming limitation would be met, but by the ODFs own modeling estimates it would push large wood recruitment to over 90% of natural recruitment from stream-adjacent riparian areas. *Long-term large wood recruitment is the foundation for*



*salmon and trout habitat-forming processes and ensures that spawning, incubation, juvenile rearing and adult habitat is conserved and maintained.*

**B. A rule change for only SSBT reaches only protects too few streams and will be fraught with serious implementation problems.**

We urge the Board to consider that SSBT reaches – particularly outside the Coast Range -- comprise a fraction of all fish streams, and as little as a quarter of all streams to which water quality standards apply on forestlands in western Oregon. (We defer to information generated by ODF and the federal agencies on the exact numbers).

***1. Protection from stream warming and provision of other aquatic habitat attributes is biologically and legally necessary on non SSBT reaches.***

The PCW by its terms requires protection of upstream reaches necessary to protect against warming in SSBT reaches, so we repeat here our position that *some non-SSBT reaches – likely both fish and nonfish reaches -- must be protected in order to meet the letter and intent of the criterion, even narrowly interpreted.* Because the PCW establishes a presumption that protection of upstream reaches is necessary to prevent warming in downstream reaches unless otherwise demonstrated, *the Board is justified in requiring default protection for a significant portions of upstream reaches – even to the extent of all fish streams.* (Default protection could be subject to a rebuttal with site-specific hydrological information demonstrating that protection is not necessary to prevent warming).

But the PCW is not the only water quality objective in play. Streams other than salmon, steelhead and bull trout reaches require protection from harvest related stream warming in order to protect other fish and headwater-dwelling aquatic species, including amphibians with aquatic life stages. *The Board is duty-bound to protect these designated uses as well and it should act to protect them now. The RipStream findings that streams are being warmed in violation of the PCW by harvest under current rules are adequate to support a degradation finding and rule change for all small and medium streams regardless of whether they are presumed to bear any particular species of fish.*

We remind the Board that the Purpose and Goals of the water protection rules at OAR 629-635-0100 (7) make it your duty “to establish and retain vegetation adequate to . . . provide aquatic habitat components and functions such as shade, large wood, and nutrients.” The Board is not constrained to define “aquatic habitat components and functions” only in terms of specific water quality standards or criteria – though these clearly set a minimum floor for meeting key riparian functions.

***(b) Tiering riparian protection to Salmon, Steelhead and Bull Trout (SSBT) reaches creates complicated implementation issues***



The significant implications of different riparian management areas on SSBT buffer rules strongly suggest the need for detailed rules and agency guidance to ensure credible and consistent implementation. We attach for your information a memorandum from my colleague Richard Fitzgerald detailing these concerns, which include:

- i. ODF will need to create, publish and maintain a new stream classification database to reflect SSBT reaches, just as it maintains a spatial database for extent of fish use now.
- ii. Current rules and guidance for determining natural barriers without surveys will not accurately determine the extent of SSBT distribution.
- iii. ODF's current fish survey protocol is not adequate to ensure reliable data – new rules or guidance are needed.
- iv. ODFW fish distribution maps were not developed for a regulatory purpose and do not provide a consistently reliable basis for determining SSBT distribution.
- v. Because current rules only allow landowners and state resource agencies to request stream classification modifications, information sources may be restricted.
- vi. There are questions about whether ODF or ODFW is the appropriate custodian of the SSBT database given concerns about expertise, capacity to conduct rapid updates and funding.

**C. The large corollary ecological benefits and associated economic values of riparian protection to the public mitigate far outweigh the timber value of riparian forests.**

The economics of riparian conservation clearly mitigate in favor of the Board's choosing the largest practicable stream buffers.

Prevention of stream warming to protect aquatic resources and meet the specific legal mandate that has been the focus of this rulemaking, but as the Department's analysis acknowledges, retention of riparian forest also increases the availability of large wood to streams, and important stream habitat component that ODFW monitoring and other research clearly demonstrates is critically deficient in many stream reaches and watersheds but is necessary for aquatic habitat recovery.

In fact, there is a long list of valuable ecosystem services that flow from functional stream systems and intact riparian forests, and it includes among others: flood protection and stormwater regulation, drinking water production and filtration, nutrient regulation, erosion control/soil retention, biodiversity conservation, increased fish populations, recreational enhancement, carbon sequestration and others. The estimated value of these



ecosystems services is generally very large, even when known to be underestimated.<sup>2</sup> Values vastly increase if the benefits to future as well as current generations are considered. The value of maintaining and restoring ecosystem health increases over time with human population.

The largest ancillary ecological value of riparian forest conservation is probably related to carbon. We attach here a memorandum from Ernie Niemi of Natural Resource Economics explaining how the carbon and climate change benefits of unlogged riparian forests could be calculated. Even accepting the lowest per acre values suggested here -- \$52,00 per acre, the carbon values accruing to the public from riparian forest conservation far outweigh the timber value of these lands on a per acre basis. Upper estimates of economic benefit created by preventing conversion to forest carbon to atmospheric carbon dioxide are \$100,000-\$300,000 per acre.

*Attachments:*

- (1) Memo from Richard Fitzgerald on SSBT Implementation Issues (3 pages)*
- (2) Memo from Ernie Niemi, Natural Resource Economics, Potential Carbon Values in Riparian Zones (3 pages)*
- (3) Summary comparison of Stream Protection Rules in Oregon, Washington and California (1 page)*

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<sup>2</sup> The array of ecosystem services provided by forestlands in a single Washington watershed for one year is estimated at between \$1 and \$5 billion dollars annually. Green/Duwamish and Central Puget Sound Salmon Habitat Plat at 6-5.