

BEFORE THE OREGON BOARD OF FORESTRY

Statement of Mary Scurlock

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Thank you for the opportunity to present these comments as part of your rulemaking process on riparian standards for private forestlands. We appreciate the efforts made by ODF staff to keep us apprised of developments. In general, we feel the process continues on an appropriate trajectory. However, we have several key concerns that we hope you will ask the Department to accommodate in ways that we believe will enhance the Board's adaptive management framework going forward.

I. SUMMARY

We recommend that Board require several modest additions the Department's proposed Systematic Evidence Review ("science review") for the riparian rulemaking to meet the Protecting Coldwater Criterion of Oregon's water quality standards. Specifically, we ask the Board to direct that:

- The science review will collect information regarding the effect of upstream management of non fish-bearing catchments on downstream reaches, and;
- The science review will collect information regarding the effects of riparian forest management on stream temperature in forests similar to those in Eastern Oregon.
- The Department will organize its information collection around the efficacy of a more manageable set of alternative treatments. At present, it remains unclear how the evidence review -- which focuses on the collection of general evidence of stream warming in response to riparian harvest -- will provide a logical path from the literature results to a decision analysis that provides a rational basis for choosing amongst the 16 alternatives.

II. DETAILED COMMENTS:

A. Inclusion of gray literature is appropriate

The proposed draft review protocol, unlike earlier drafts, has relaxed the emphasis on peer-reviewed studies to allow gray literature, primarily in order to allow evaluation of data collected by states for purposes of effectiveness monitoring. We support this.

B. Scope of the Scientific Evidence Review should include impacts of riparian harvest on both fish and non-fish streams

We are pleased that neither the refined "Primary Review Question" nor the Secondary

Question limits inquiry to fish-bearing streams. However, we remain concerned that the management of upstream non-fish streams is inexplicably omitted from the list of “modifying factors.” *We urge the Board to clarify that the contribution of cold water from non-fish streams to fish streams must be within the scope of the evidence review.* Despite the Board’s express limitation of this rulemaking to riparian forests adjacent to small and medium fish streams, it would arbitrarily hamstring the science review process were it to exclude research relevant to harvest impacts on non-fish stream temperatures and the propagation of these impacts to the fish-bearing network.

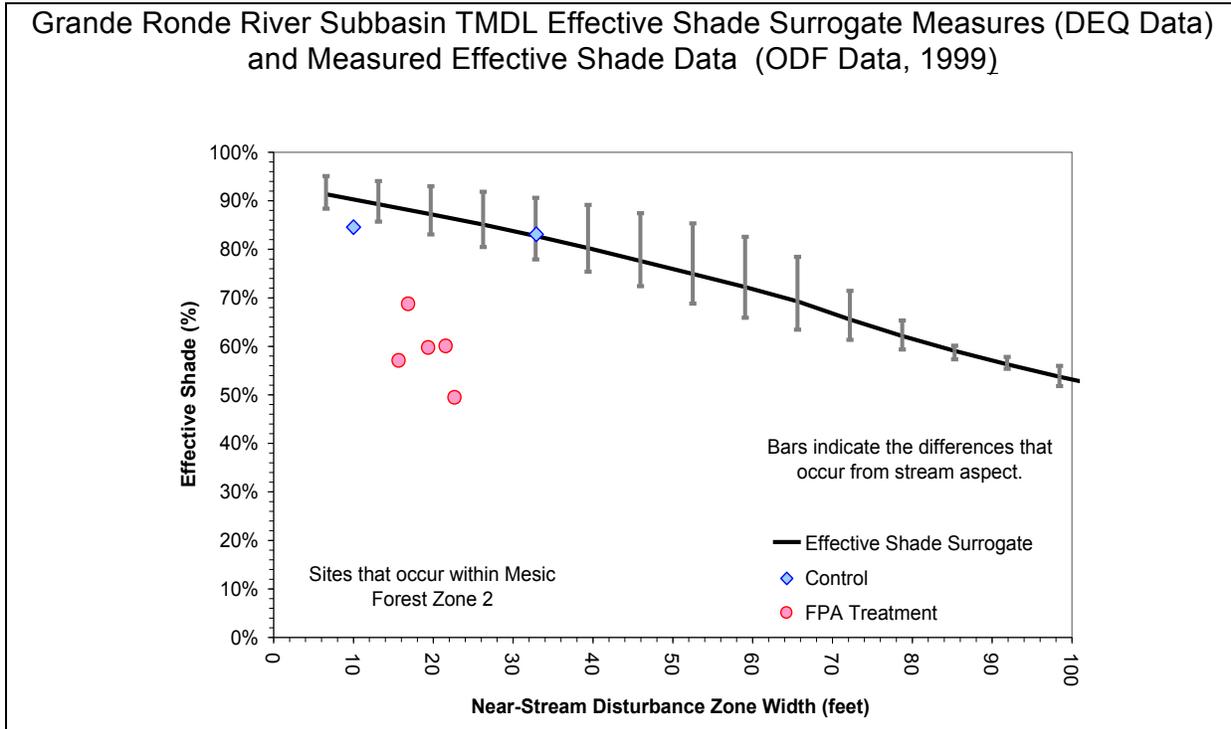
As to the larger question of logging impacts on small streams not implicated by the PCW, there is an urgent unmet need to investigate the available data on small stream warming – specifically, data on warming of near-surface groundwater and how that is reflected in small stream temperatures. Although the proposed study is not designed to grapple with any of these true-small-stream surface-water-to-groundwater connectivity issues, this subject is worthy of its own equally intensive systematic review effort. We note that several studies from Washington suggest cumulative warming from near-surface groundwater warming can be consistent and extensive enough to affect the baseline thermal regime across the landscape or on a watershed scale. This kind of warming is probably more easily observed in landscapes with a large portion of wet and gently sloping terrain where a large area is logged over a short time. Groundwater temperatures may also warm after cutting in steeper slope systems and thermal pulses can be flashed through quickly early in the season before it’s easily discernible but with significant biological impacts. (*See e.g Holtby 1988 finding spring warming in Carnation Creek, BC with adverse developmental effects on coho and chum salmon*).

C. Scope of the Science Review should include impacts of riparian harvest on streams in both Westside and Eastside/interior forests

The proposed evidence review does not include literature relevant to the question of harvest impacts on stream warming in forests similar to those in Eastern Oregon. The reasoning is that because RipStream data is limited to western Oregon and cannot be extrapolated to eastern Oregon forests, that this evidence review should not collect information relevant to Eastern Oregon. We believe that precisely *because* RipStream is focused on western Oregon forests the Department should explore what information exists relative to forest and stream types extant in eastern Oregon. Such a review may also shed light on the extent to which western Oregon data can logically be used to make inferences on the eastside.

The Department has consistently represented to the public and the Board that a decision about the geographic scope of this rulemaking will be made only after the promulgation of proposed alternatives based on the Board’s review of “science on the applicability of alternatives.” By excluding eastern Oregon from the SER process, there can be no meaningful decision point about geographic scope because the lack of a scientific basis will become a self-fulfilling prophecy: we must look for this information in order to find it. It is quite well known that there is data to support the contention that current FPA requirements in Eastern Oregon reduce shade in violation of water quality standards as expressed through TMDL shade targets, clearly implicating the Protecting Coldwater Criterion that is the focus of this

rulemaking. See e.g. the graph below from the “319 Shade Study” showing significantly lower effective shade on FPA treated streams than on control sites. (ODF, 1999).



We believe that including the collection of information relevant to harvest-related stream warming in Eastern Oregon during this review would be an efficient, near-term way to address this issue outside the scope of RipStream. Alternatively, if not addressed in this review, the Board should ensure that a literature review and monitoring activities designed to address this question are Departmental priorities. *If the Board does not direct inclusion of Eastern Oregon in the evidence review we believe that clear Board direction of some kind is needed.* The Department has a duty to address the adequacy of stream protection rules statewide, but it is not clear to us or other interested publics what, if anything is being done about it. The public deserves to know what is being done to address rule adequacy in areas not covered by this rulemaking.

D. Evidence review may be more useful if it focuses on efficacy of specific rule alternatives

It is not clear to us that, as proposed, the scientific evidence review will foster the needed analytic work and synthesis of specific treatment rules. Rather, from our perspective, the review seems likely to conclude something that may already be known: i.e. that Groom et al. (2011) is the study that most closely meets the chosen screening criteria. Because of limited geographic scope and design, no other studies are likely to contribute more than minor weighting or qualifications to the outcomes of this definitive report. Studies from other states (mainly Washington) that most closely meet the design criteria, and are relevant to the range of alternative treatments, have yielded similar results. Most other studies that will meet the design criteria will be marginally relevant because they center around treatments such as

complete clear-cutting that are not under consideration in the present rulemaking.

However, if we focus the review on specific rule concepts and proposals, such as "account for shade contributions from shrubs or other non-woody plants," there are more likely to be some existing studies from which information could be extracted (certain sites or treatments) to inform that very specific question or assumption. The most logical and efficient scientific review process may be to begin with each of the 16 specific "alternatives" and ask how specific elements of the available scientific studies inform each of them. In effect, each alternative rule would generate its own small equivalent of a systematic review. To accomplish this, the 16 "alternatives" -- which are not all in the form of proposed treatments, some are merely questions or biophysical assumptions--would need to be refined and reduced to a somewhat smaller set (maybe 6 or so) stated in terms of a specific near-stream treatment rule. This approach may produce a process and conclusions that are more directly relevant to the decisions at hand and more transparent to the public and the Board.

The essential difference between what is being proposed and what we propose is the difference between a doctor doing a review to determine whether a patient has gotten sick – something already in evidence – and doing a review to determine the effectiveness of a specific treatment to make known sick patients well or to keep well patients from getting sick in the future.

E. Make Timeline Clear for Stakeholder Input

The timeline on the rulemaking has now been extended to February 2014, but it is not clear when the report on how the science supports various prescriptions/alternatives will be out for comment, although we speculate it will be some time this summer. We urge the Board to direct the Department to be publish a timeline with interim steps along the Board's decision pathway in order to ensure that adequate time for stakeholder input is included.

F. Continued concern about consequences of failure to address non-fish network.

We remain concerned that this rulemaking process cannot not meet even its narrowly stated objective to prevent warming on small and medium fish streams because the Board has already decided not to change riparian standards for non fish bearing watersheds.

As I have noted in each of my previous appearances before this Board over the last year, it is explicit in OAR 340-041-0028 that human activities, including timber harvest, are prohibited from raising stream temperatures by more than 0.3°C in streams that support coldwater fishery resources or critical habitat, *and streams that are necessary to provide cold water to fish-bearing streams*. Throughout the range of the species of concern, thousands of non-fish-bearing streams contribute cold water to fish bearing streams, and these streams are equally vulnerable to warming as fish-bearing streams because the physics are essentially the same. If these streams are not adequately protected, even the narrowly drawn regulatory requirement being targeted here will not be met.

Given the continued failure to address the impacts of forest management on non-fish streams

in this rulemaking, *we strongly urge the Board to make clear to the public how it plans to reassure the public that the forest practices rules are adequate to meet water quality standards for non-fish streams, i.e to demonstrate that all existing and designated uses are fully protected.* Regardless of whether these streams are addressed in this rulemaking, a clear plan of action to address the inadequacy of the current rules to ensure protection of the small streams constituting a majority of Oregon's stream miles is urgently needed.

Respectfully submitted,



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