

BEFORE THE OREGON BOARD OF FORSTRY
Statement of Mary Scurlock
Regarding Agenda Item 3 and Associated Issues: Rule Change to Prevent Stream
Warming on Small and Medium Fish-bearing streams

November 7, 2012

John Day, Oregon

This testimony is submitted on behalf of a consortium of conservation organizations that share a common interest in the health of Oregon's aquatic ecosystems and the perspective that the overall economic well-being of all Oregonians is served by protecting the intrinsic capabilities of our forested watersheds to produce clean, plentiful water and to support native aquatic species.

1. General Concurrence with Staff Interpretation of the Meaning of Maximum Extent Practicable

We generally concur with the proposed working definition of what it means for a stream protection policy to insure that forest practices, to the maximum extent practicable, do not impair the achievement and maintenance of water quality standards within the meaning of the Forest Practices Act and its implementing rules. ORS 527.765; OAR 629-635-0010 (7a)..

Department staff has correctly explained that the definition of MEP is really inextricably entwined with what it means for the state's forestry rules – which are the state's "best management practices" for purposes of Clean Water Act compliance -- to meet standards, i.e. achieve the "desired level of protection." Specifically, we agree with staff that each alternative considered by the Board as a viable alternative must meet the "maximum extent practicable" standard independently of considerations of "economic . . . feasibility." This interpretation is supported by the plain meaning of the statute and does not require reliance on case law to interpret. We are satisfied that the Department of Justice's August 23, 2005 memorandum represents a current legal interpretation that is not further informed by more recent cases.

This means that although ORS 527.765(d) requires the board to "consider" economic feasibility, and ORS 527.714 ultimately requires the Board to select the "least burdensome management alternative," any individual alternative must already have been determined to meet the maximum extent practicable standard. It is not, therefore, appropriate to take economic feasibility into account when determining whether a particular management practice meets water quality standards to the maximum extent practicable.

2. Concerns about the meaning of "across the landscape"; omission of "natural" from reference to background per original staff recommendation, omission of "exceedance."

The specific amended recommendation from staff is that: "When applied, BMPs are expected to ensure that harvest sites with small and medium type F streams will not, on average and across the landscape, result in stream temperature increases greater or more

frequent than can be expected under background conditions.”

The original recommendation was: “When a BMP is applied, the expectation is that harvest sites across the landscape will not exhibit exceedances (increases greater than .3 °C) more frequently than expected under natural background conditions, and that “the expected average temperature increase is not significantly different than zero.”

We have a few concerns about the final recommendation:

1) “*Landscape scale*” should not be interpreted to accept analysis at larger than the basin scale at which Oregon’s water quality standard and TMDLs apply.

We understand and agree that a reach by-reach approach to determining whether timber harvest practices are causing temperature increases is not appropriate when attempting to create blanket policies or when trying to tease out management impacts from highly variable background data. The staff report refers to BMP application being applied across “a number of stream reaches” – this sounds reasonable and comports with how RipStream was conducted.

However, we are concerned that “on average and across the landscape” should not be interpreted to mean that impacts are only cognizable at so large a scale as to prevent the detection and recognition of ecologically significant management-related impacts within a single watershed. We note that water quality standards in Oregon are written at the “basin” scale, so “landscape” should certainly not be interpreted to mean a larger scale than these basins. Hopefully, this concern will prove unfounded as the rule alternatives analysis progresses.

2) We preferred the original staff recommendation’s reference to .3 degrees C and “exceedances” because this rule is specifically designed to comply with the PCW criterion. However, because this language must be read consistently with the rule’s objective -- which is to meet PCW -- we accept the reference to *stream temperature increases* in the interests of simplicity.

3) *Omission of “natural” from background.* We understand that an exceedance of the PCW standard does not require a deviation from “natural” background to constitute an violation of the standard, so do not object to the omission of natural from the staff recommendation. But to the extent that this change seeks to avoid using the term “natural background” based on a desire for the Clean Water Act to accept management –induced elevated stream temperatures across the managed landscape, we object to any implication that natural background levels not relevant.

3. Continued Stakeholder Communication is Critical

The conservation community anxiously awaits the emergence of the specific details of management measures deemed adequate to prevent stream warming from timber harvest. We hope the Department staff will continue to conduct outreach to stakeholders between

Board meetings, and encourage staff to share early drafts of management alternative details and analysis. The continued dedication of staff resources to this kind of communication will pay off in the long run with greater public acceptance of the final rule proposal.

4. Concerns remain about failure to address non-fishbearing streams in light of strong evidence that stream temperature impacts occur from timber harvest on non fish-bearing streams

The conservation community remains concerned that the Board is not devoting enough energy to addressing risks to temperature, sediment and large wood regimes by current rules on non fish-bearing streams, which comprise the majority of stream-miles in many of Oregon's watersheds (over 80% in the Coast Range). Not only does failure to address this issue compromise salmon recovery and watershed restoration goals of the Oregon Plan, but new management measures to address these risks must be addressed in order for DEQ to a meet its Coastal Zone obligations generally, and specific to the Settlement Agreement with NWEA. To the extent that ODF does not lead its own effort to improve stream protection on the non fish streams to which water quality standards apply, it will be left to DEQ to propose management measures

Our overall concern is that the focus on reach-level impacts to stream temperature on fish bearing streams in studies such as RipSteam has deflected us from scrutiny of watershed-wide cumulative impacts and from a growing body of literature indicating that aquatic life is not being protected on the non fish-bearing network. EPA, in particular, has recently analyzed available modeling and field data on shade loss and stream temperature changes.

For example, a major published study of stream temperature impacts from three buffer treatments on small non fish-bearing streams in Washington detected significant warming. Janisch, JE, SM Wondzell, and WJ Ehinger. 270 Forest Ecology and Management 302-313 (2012) (attached). This study has also indicate that there is a more complicated and variable relationship between stream canopy and warming in these smaller streams, which often have intermittent subsurface flow. Nonetheless, there is evidence of an overall connection between harvest and stream temperature changes in small streams and a strong indication that certain site characteristics can be used to ascertain those streams most vulnerable to warming from canopy removal. These characteristics include stream surface area, the presence of associated wetlands, and substrate texture. Id at 312.

Another major Washington study finds that a statistically significant number of the 50' buffers along non fish streams were impacted by windthrow and that there is a resultant loss of shade canopy, confirming the suspicion of many field scientists that small linear buffers may not protect riparian functions when significant portions of these upper watersheds are clearcut over a short period of time. A closely related study -- in progress and due out next year - will provide even more information about how these buffers are functioning in competent lithologies vis-a-vis stream temperature -- i.e. it will provide a greater number of pre-post treatment sites and actual stream temperature change data. This study will shed further light on the impacts of various riparian harvest practices

on temperature and sediment, with further work on amphibian response planned. The preliminary results of this study build on what we know was happening in terms of canopy loss, and show that streams are heating up even under Washington's rigorous riparian prescriptions (essentially 50 foot no cuts for 50% of perennial non-fish stream length) and even under a comparable buffer for the entire stream length (i.e. to the initiation point of perennial flow). Schuett-Hames et al., Results of the Westside Type N Buffer Characteristics, Integrity and Function Study, Final Report (CMER 12-1201;) (http://www.dnr.wa.gov/Publications/fp_cmer_12_1201.pdf).

5. It is important to work closely with DEQ, EPA and NOAA in this rulemaking given that these rules will constitute a major piece of the coastal nonpoint source pollution management measures which must be found adequate by the federal agencies in order for DEQ to maintain its Clean Water Act Section 319 funding and for DLCD to maintain its CZMA funding.

As the Department crafts its approach to independent scientific review of the management alternatives to be considered – a subject that will be taken up in March of 2013, we urge the Board to work closely with DEQ as well as EPA and NOAA. The greater public interest would not be served were this process to produce rules that do not meet the nonpoint source pollution control requirements of the Coastal Zone Management Act, such that this program is disapproved and federal funding becomes unavailable. Keeping these broader policy goals in mind, it is imperative that the Department keep its promise to consider all relevant scientific and policy information in this rule process – not just the data provided within the four corners of the RipStream study.

We note that in related forums, EPA has recommended that multiple metrics be used to establish riparian condition targets to protect stream temperature: a no-cut inner buffer in addition to a managed outer buffer, stocking requirements that are consistent with a trajectory toward site-potential vegetation, minimum floors for retention of largest trees. It has also been suggested that special consideration be given to lower management-related risks in impaired basins, along streams feeding or constituting coldwater refugia and public water supply basins.

Thank you for your thoughtful consideration. We look forward to the next stages of this rulemaking process.

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