

**Testimony of
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BEFORE THE OREGON BOARD OF FORESTRY, JUNE 5, 2019

Good morning, Chair Imeson and Board Members and thank you for the opportunity to be heard today. My name is Dan Brown and I work as a natural resource advisor for the Environmental Protection Agency's Pacific Northwest Region (or Region 10). In that capacity, I work with a diverse team of scientists and water quality and Clean Water Act experts to develop well supported positions regarding the effects of forest management activities on water quality condition of rivers and streams in the states of Alaska, Idaho, Washington and Oregon. We conduct these activities to implement the Clean Water Act and the Safe Drinking Water Act in partnership with states and tribes.

We want to share our concern that the current forest practices in the Siskiyou are not protective of water quality standards. We expressed similar concerns to the Board in 2015 when ODF staff presented strong evidence, through the Ripstream analysis, that a minimum of a 90-foot intact "no-harvest" riparian buffer was needed to ensure streams do not violate the Protecting Cold Water Criterion.

Today ODF staff presented their Siskiyou Streamside Protections Review. Although this review is more limited than Ripstream, the findings are consistent. Namely that stream temperature responds directly to management practices, that post-harvest sites exceed numeric water quality criteria significantly more than pre-harvest sites. And that some sites had pre- to post-harvest temperature changes exceeding the Protecting Cold Water Criterion.

In the Siskiyou Streamside Protections Review studies, shade was shown to be impacted by riparian management with up to a 12% decrease reported at sites where thinning occurred. The Ripstream analysis found that a loss greater than 6% of stream shade resulted in a temperature increase greater than the Protecting Cold Water Criterion threshold of 0.3°C.

Beyond the Siskiyou Streamside Protections Review, we know there are 100 temperature impaired waters addressed in the Rouge River Basin TMDL alone. During the

January 9, 2019, Board meeting, Oregon Department of Environmental Quality presented information to this board regarding Temperature TMDLs in the Rogue Basin. Specifically, Oregon DEQ used data from ten TMDL monitoring stations across the Siskiyou to show that 8 of 10 stations were exceeding spawning and/or summer criteria and four of these showed a worsening water quality trend. Using available databases and GIS data sets, EPA estimates that 80% of the 774.4 river kilometers along privately managed forested lands within the Siskiyou are listed as impaired for temperature, sedimentation or turbidity¹.

We acknowledge this is a complicated water quality problem to solve. And there is a long history of great work on behalf of ODF and ODEQ analyzing riparian rule effectiveness, including: the 1997 Oregon Coastal Salmon Restoration Initiative², Oregon's 1999 Independent Multidisciplinary Science Team report³, the 2002 Sufficiency Analysis⁴, and the more recent Ripstream studies⁵. Collectively, these analyses, along with the current Siskiyou Streamside Protections Review, inform us that existing forestry practices do not ensure streams will consistently meet water quality standards, nor fully provide for riparian functions important to water quality and fish. To ensure water quality is on a path of improvement to meet water quality standards and Protecting Cold Water Criterion, we believe greater riparian buffers are needed and encourage the Board to take appropriate actions.

Thank you for your time.

¹ EPA used "DEQ_Streams" layer to define total stream distance, used "OR_Streams_WaterQuality_2012" layer with column labeled "Parameter" in the attribute table to determine the streams that were listed for temperature, sedimentation or turbidity. Stream layers were then clipped to the private management areas based on the landownership layer ODF website (Ownership_Land_Management). The private management clipped streams were further clipped by forest landcover using "Upland Forest", "Upland Wood", and "Riparian Forest" attributes in the ESPLF_NAME column within the Environmental Site Potential (ESP) dataset from the USFS Landfire website (<https://www.landfire.gov/>).

² http://www.oregon.gov/OPSW/docs/ocsri_mar1997ex.pdf

³ Independent Multidisciplinary Science Team. 1999. Recovery of Wild Salmonids in Western Oregon Forests: Oregon Forest Practices Act Rules and the Measures in the Oregon Plan for Salmon and Watersheds. Technical Report 1999-1 to the Oregon Plan for Salmon and Watersheds, Governor's Natural Resources Office, Salem, Oregon. <http://www.fsl.orst.edu/imst/reports/1999-1.pdf>

⁴ The Oregon Department of Forestry and Department of Environmental Quality. 2002. Sufficiency Analysis: A Statewide Evaluation of FPA Effectiveness in Protecting Water Quality. Available at: http://www.odf.state.or.us/DIVISIONS/protection/forest_practices

⁵ Groom, J.D., L. Dent, and L.J. Madsen. 2011. Response of western Oregon stream temperatures to contemporary forest management. *Forest Ecology and Management*, doi:10.1016/j.foreco.2011.07.012