

March 20, 2014

To: Environmental Quality Commission Members

From: Scott Hayes

My name is Scott Hayes and I'm the president of the Oregon Small Woodland Association. My wife and I own 40 acres of forestland west of Banks.

My comments focus on how the Protecting Cold Water temperature is measured and whether a temporary minor increase in water temperature adversely affects fish and wildlife.

The Oregon Department of Forestry began the RipStream study in 2002. Thirty-three forest streams in the Coast Range had temperature probe data recorded before and after harvest, with two plots placed above a harvest unit (1W & 2W) and two below the harvest unit (3W & 4W).

The main purposes of the study were to measure the Biologically Based Numeric Criteria standard and the Protecting Cold Water (PCW) standard following timber harvests under current riparian management rules. RipStream found no statistically significant temperature violation of the 64 degree Fahrenheit numeric criteria.

The study did find the PCW standard of 0.3 Celsius was exceeded on 5 of the 18 industrial forestland sites in the study, by an average 0.7 Celsius, during the first year following harvest.

There were no family woodland owner sites in the study.

How the PCW Standard is Measured

At some time before RipStream data analysis began, the DEQ recommended how the Department of Forestry should measure and apply the PCW standard, the choice being to either:

- a) Pick a specific point to measure a PCW stream temperature (temperature probe 3W),
or
- b) Use an average "mixing" temperature of the stream as it flowed downhill for a specified distance (for example, taking a temperature between probes 3W and 4W).

The policy choice was a), which in effect treats the PCW standard on forestland as a "point source" temperature standard. It also severely limited the RipStream data analysis.

Reference to PCW Measurement Policy Choice

In the Board of Forestry's November 3, 2011 Agenda Item 4, page 6, this policy decision is referenced:

"The PCW standard applies to state waters whose temperatures normally lie below the Numeric Criteria values. The standard prohibits increasing stream temperatures by more than 0.3C above their 'ambient temperature'. This change is quantified as 'all sources taken together at the point of maximum impact where salmon, steelhead or bull trout are present.' DEQ interprets this to be the point at which a change in

temperature is generally expected to be greatest; namely, immediately downstream of a timber harvest (temperature probe 3W). The Department collaborated with DEQ to determine the most appropriate means for analyzing PCW compliance for RipStream data and constrained the analysis to adhere to the rule language as closely as possible. Our study design did not enable us to directly examine a secondary aspect of the PCW (OAR 340-041-0028(11)(b)) that has to do with cumulative effects of temperature increases downstream of multiple timber harvest units.”

A footnote in the quote states: ...”*stream temperature measured at a specific time and place. The selected location for measuring stream temperature must be representative of the stream in the vicinity of the point being measured. (OAR 340-041-002(2))*”.

More Practical Alternative to Measure PCW

OAR 340-041-0002(2), noted above, is a definition of ambient temperature. However, if the definition is viewed under the broad policies in OAR 340-041-0028, Temperature, and OAR 340-041-0028(11) Protecting Cold Water, the Commission has the opportunity apply a policy that results in a more practical application of the PCW standard on forestlands. Allowing for some downstream mixing before the temperature is taken, somewhere between probes 3W and 4W, would also mirror DEQ rules that allow for rolling 60 day average maximum ambient water temperature mixing below point-source industrial discharges into streams before measurements are taken.

The opportunity to follow this new policy is a reasonable choice that is not in conflict with the Clean Water Act’s direction that changing parameters are not disallowed. This new policy will also lift the constraints placed on the RipStream scientists, resulting in a more holistic view of the cumulative effects of downstream temperature increases. It can also have huge impacts on family woodland owners.

In summary, from a practical point of view, it is difficult to argue that small temporal temperature increases of 0.3 degrees Celsius or 0.7 degrees Celsius degrade water-dependent fish or wildlife. This is especially true on forestlands when one considers that such small potential increases may happen only once every fifty or sixty years between harvests.

Recommendation

OSWA encourages the Environmental Quality Commission, after consultation with the Oregon Board of Forestry, to adopt a PCW temperature measurement policy that uses an appropriate mean “mixing” temperature.