

WATER LEAGUE

*The mission of Water League is to engage
the public in the stewardship of water.*

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February 15, 2023

To: House Committee On Agriculture, Land Use, Natural Resources, and Water
Representative Ken Helm, Chair
Representatives Annessa Hartman and Mark Owens Vice-Chairs

RE: Water League Testimony on House Bill 2248

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Chair Helm, Vice-Chairs Hartman and Owens, and Committee Members,

Water League opposes HB 2248 (which requires the Water Resources Department and Department of Environmental Quality to study the impacts of wildfire on the water quality of streams and tributaries) because the lack of specificity in the bill strongly suggests a political motive rather than a scientific one.

This bill proposes: This bill proposes: “At minimum, the study must assess how the first rains after a wildfire affect the water quality, and whether levels of turbidity and sediment change after a wildfire.”

What are the actual scientific questions our Legislators wish to address by writing this bill? How would the Legislature use the data produced by this investment? Other bills during the 2023 legislative session are long on the details of the science they propose. Why not HB 2248?

There is considerable scientific research into the question of sedimentary runoff into salmon-spawning streams, such as the massive geomorphic impacts clear-cut logging and road building also have on salmon-spawning streams. We suggest including data from that research into HB 2248.

DEQ and WRD are regulatory agencies and do not have the breadth of research institutions; as such, they do not possess the resources to assess the infilling of deep salmonid habitat pools. The science required to provide this analysis must come from the discipline known as Fluvial Geomorphology, the study of the interactions between the physical shapes of rivers, their water and sediment transport processes, and the landforms they create.

For a short bill, the questions posed in HB 2248 are complex and can be hard to answer even with an elegant study design and plenty of resources to carry out the science. Geomorphologists Dr. Peter Klingeman, OSU Department of Civil Engineering (deceased), and Dr. Patricia McDowell (emeritus), UO Department of Geography, worked for decades to document water flows and sediment transport in the maintenance of long-term stream features like pools and riffles. The state should consult their colleagues on HB 2248 if the state of Oregon intends to study the subject.

The expertise needed to assess sediment impacts on salmonid deep water pool habitats can also be found at the Oregon Water Science Center (OWSC), which operates the U.S. Geological Survey in Oregon.* OWSC can make use of large existing data sets and can archive the data and reporting produced for the Legislature for wider public distribution.

Another challenge with HB 2248 lies in the proposed funding cycle, which is too short to take accurate measurements of the sediment transport processes which maintain deep pool features. The study must test a hypothesis during storm/ flood events over an extended study period to obtain meaningful analysis from the field data sets. The required data takes longer time-frames than just after the first rains; it can take years to be meaningful.

All landscape-scale analyses of wildfire impacts to stream ecological and geomorphological processes must utilize the watershed as the basic foundation for scientific study. River stream flow analysis is widely held within the scientific community as useless if it is not set in the context of the watershed to which it belongs.

Thank you,



Dr. Christine Perala Gardiner
Director



Dr. John Gardiner
Vice-President

***Please see their web site on Lakes and Rivers, <https://www.usgs.gov/centers/oregon-water-science-center/science/lakes-and-rivers>**