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Ms. Susan Braley  
Washington State Department of Ecology  
PO Box 47600  
Olympia, WA 98504-7600

**RE: Comments on Proposed Rulemaking for Water Quality Standards for Surface Water of the State of Washington**

Dear Ms. Braley:

Thank you for the opportunity to comment on behalf of Northwest RiverPartners (“RiverPartners”) regarding the Proposed Rulemaking for Revisions to Chapter 173-201A WAC, Water Quality Standards for Surface Water of the State of Washington. RiverPartners is an alliance of farmers, utilities, ports and businesses that promotes the economic and environmental benefits of the Columbia and Snake rivers; fish and wildlife policies and programs based on sound science; and clean, renewable, reliable hydropower. RiverPartners’ member organizations represent more than 4 million electric utility customers, 40,000 farmers, thousands of port employees, and large and small businesses that provide hundreds of thousands of Northwest jobs. The focus of this letter is Ecology’s consideration of amending the numeric criteria for total dissolved gas in the Snake and Columbia rivers (WAC 173-201A).

**Description of Current Proposal**

Per Ecology’s July 30, 2019 Proposal Notice:

*The goal of this rule proposal is to improve fish passage for salmon and steelhead migrating downstream in the Snake and Columbia rivers. Dams release water through spillways over the dam and fish using the spillway have a better chance for survival compared to those that pass through the dams’ turbines. However, spilling water also increases TDG that can negatively impact aquatic life. This rule proposal would amend the TDG limit to allow for greater water flow through spillways for improved salmon migration, while ensuring that TDG limits minimize negative impacts to aquatic life through sufficient biological monitoring.<sup>1</sup>*

Specifically, these amendments would:

- “Provide a new adjusted TDG criteria that may be applied at dams that operate increased spills for the purpose of improving downstream juvenile salmon and steelhead migration in the Snake and Columbia rivers.”

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<sup>1</sup> [7/30/2019 CR-102 form](#)

- “Establish biological thresholds that must be met to apply an adjusted criteria up to 125% TDG.”

## Critical Considerations

**The revisions must be part of a legally valid Endangered Species Act consultation.** As Ecology acknowledges, the decision to explore a move to higher TDG levels comes from the 2019-2021 Spill Operation Agreement (“Spill Agreement”), which sought to create a “win-win for salmon, orca, and power generation.”<sup>2</sup> To ensure that Washington’s electricity customers are held harmless from Ecology’s proposed rule change, we were pleased to see language in the proposal that links compliance with the State standard to federal environmental standards such as those required by the Endangered Species Act (“ESA”). Specifically, we support retention of language in the proposal that requires the TDG criteria applied at dams operated by the U.S. Army Corps of Engineers to be in accordance with legally valid Endangered Species Act consultation documents on Columbia River system operations, including operations for fish passage. Without that accordance, spill could be increased without any consideration of customers, which would run counter to the spirit of the Spill Agreement, federal environmental mandates, and Ecology’s stated objectives.

**Revisions should take into consideration Ecology’s findings from its 2009 TDG evaluation.** Any changes in TDG standards should be based well supported science.

An important data point to flag as Ecology works to finalize this rulemaking, is that in the agency’s “Evaluation of the 115 Percent Total Dissolved Gas Forebay Requirement” document from 2009, Ecology stated:

*“The weight of all the evidence from available scientific studies clearly points to detrimental effects on aquatic life near the surface when TDG approaches 120%. The detrimental effects ranged from behavior changes to high levels of mortality after a few days. There were fewer effects on aquatic life at 115% TDG. Ecology strongly encourages implementing actions that increase salmonid survival without further increasing total dissolved gas.”<sup>3</sup>*

With this prior evaluation’s warning against TDG increases firmly in mind, it is important for Ecology to identify the science or information it has become aware of that would change its previous conclusion. If Ecology is not aware of new information or science that causes it to change its previous conclusion, then Ecology should consider a temporary rule waiver, instead of a change in the permanent rule to reduce the risk to aquatic life, until additional data become available.

**Monitoring programs must include effects on adult fish.** Under the proposed Amendatory Section of WAC 173-201A-200 reads:

*Application of the tailrace maximum TDG criteria must be accompanied by a department approved biological monitoring plan designed to measure impacts of fish exposed to increased TDG conditions. Beginning in the year 2021, plans must include monitoring for nonsalmonid fish species and must continue for a minimum of five years, and thereafter as determined by the department.*

RiverPartners is supportive of a robust monitoring program to be funded by the state that safeguards salmon and nonsalmonid fish from harmful TDG levels. We note also that it is critical that Washington’s monitoring

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<sup>2</sup> [WA Dept. of Ecology News Release, 7-31-2019](#)

<sup>3</sup> Adaptive Management Team Total Dissolved Gas in the Columbia and Snake Rivers: Evaluation of the 115 Percent Total Dissolved Gas Forebay Requirement. Washington State Department of Ecology and State of Oregon Department of Environmental Quality. January 2009, Publication no. 09-10-002. Page 60.

program not be merely applied to juveniles, but to adults as well. We note that for every 100 salmon smolts in the Columbia River Basin, roughly one or less successfully return to spawn as adults. Given the immense importance of the returning adults, they must be closely monitored to ensure their health is not being negatively affected by increased spill levels.

Also, the adult monitoring program should be applied to all impacts of increased spill—not merely on observed gas bubble trauma. As an example, the adult monitoring program should consider the increased upstream migration time and mortality that adult salmon are exposed to as a result of increased levels of spill. We note that this year, adult salmon were stalled repeatedly in their efforts to make it upstream past Little Goose Dam, due to increased spill levels. Correspondingly, Claire McGrath, of the National Oceanic and Atmospheric Association, presented the attached report to the US Army Corps of Engineers Technical Management Team Meeting on 7/10/2019. According to the TMT meeting minutes (attached), Ms. McGrath concluded, *...that despite varying results from the data tools, all of the indicators did consistently point to lower than expected conversion rates and slower travel times in the Lower Monumental to Little Goose reach. The 2019 YTD (as of 7/10) conversion of PIT-tagged adult Chinook from Lower Monumental to Little Goose was 96.2%, whereas the historical average for EOY conversion is 98.3%.<sup>4</sup>*

Given that spring Chinook are a culturally prized fish with the greatest biological value, and near their spawning grounds in this scenario, this lower conversion rate represents a significant reduction in survival.

### **Conclusion**

RiverPartners advocates for the balanced use of rivers, for the benefit of communities and the environment. We are supportive of measures that have proven scientific benefit for salmon and that consider the effect that the decisions have on the many users of the river system.

With this mission in mind, we ask that Ecology maintain fidelity to the Spill Agreement principles upon which Ecology’s rule change proposal is based. It is critical that the three objectives outlined at the Spill Agreement’s outset are adhered to – provide additional spill for fish, manage power system costs, and preserve hydro system flexibility.

Further, we encourage Ecology to make sure that it is making the best scientific decision for salmon in its final conclusion and ensure adequate safeguards are in place for both juvenile and adult salmon.

Thank you again for the opportunity to comment. RiverPartners looks forward to working with Ecology throughout this and other key regulatory processes.

Best,



Kurt Miller  
Executive Director, Northwest RiverPartners

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<sup>4</sup> [7/10/2019 Columbia River Technical Management Team Draft Facilitator’s Summary](#)