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May 21, 2019

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*Comments submitted electronically*

RE: Scoping Comments for Environmental Impact Statement for rulemaking to Chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington.

Dear Director Bartlett,

Thank you for the opportunity to provide scoping comments to the Department of Ecology (Ecology) on rulemaking for Chapter 173-201A concerning a proposed increase to the state's total dissolved gas (TDG) standards at dams on the Snake and Columbia Rivers. Increasing these standards to 125% TDG will allow more water to be spilled over dams on the Lower Columbia and Snake rivers. The most recent, best available science suggests that increasing spill over these dams will help restore salmon runs that highly endangered southern resident orcas rely on.

Defenders of Wildlife (Defenders) is a national non-profit conservation organization with over 1.8 million members and supporters nationwide, including more than 24,000 members and supporters in Washington state. Founded in 1947, Defenders is a science-based advocacy organization focused on conserving and restoring native species and the habitat upon which they depend. We have a long history of contributing to agency-led recovery for endangered species. This past year, our staff participated in the Orca Task Force's Prey Work Group, which helped develop the recommendation to increase the state's TDG standards to 125%. We have also worked with schools, cities, counties, and state agencies on programs to reduce toxic pollution throughout the Salish Sea, helping to recover orcas and the salmon they depend on.

As you prepare the Environmental Impact Statement (EIS), we ask that you consider the following in your analysis:

#### Southern resident orcas

Southern resident orcas are among the most endangered marine mammals in the world, and their decline is driven by a lack of their primary prey, chinook salmon. Perhaps the greatest change in the orcas' diet has occurred in the Columbia Basin. Prior to European colonization, the Columbia Basin supported millions of salmon, half of which were from the Snake River, providing orcas with a critical source of food. After these

rivers were dammed, salmon runs throughout the basin collapsed. Despite billions of dollars invested in recovery, no salmon runs have recovered, further jeopardizing orcas.

Increasing spill to 125% TDG over the Snake and Columbia river dams would benefit seven of the fifteen most important salmon runs in the orcas' current diet<sup>1</sup>, and was a recommendation from Governor Inslee's Orca Task Force. In its previous EIS on Short-Term Modification to Adjust Total Dissolved Gas Levels in the Columbia and Snake River, Ecology did not explicitly mention the historical and current importance of Columbia Basin salmon runs to southern resident orcas. We suggest this be added to this EIS along with an analysis of the anticipated benefits spill at 125% would have for southern resident orcas.

#### Discussion of the most recent, best available science supports increasing TDG standards to 125%

In its previous EIS, Ecology cited several studies suggesting that increasing TDG and prolonged exposure to saturated water is detrimental to aquatic life. It is worth noting that that vast majority of those studies are from the 1990s or earlier. The scientific community's understanding of spill and TDG has significantly advanced in the last two decades. The most recent, best available science supports efforts to increase TDG standards to 125%. The older studies cited by Ecology do not provide a holistic analysis of the impact of increased spill and TDG on salmonids and other aquatic life. We recommend that Ecology incorporate the most recent, best available science to guide its management decisions. Studies we recommend Ecology review and include in its EIS are listed below under the section titled "References."

#### Impacts to non-native fish species would further benefit salmon

In Ecology's previous EIS, the department discussed the potential impacts of increased spill on non-salmonids. As that EIS stated, there are no studies indicating that 125% TDG impacts invertebrates or native amphibians. The species that increased TDG would impact are non-native species, several of which predate on juvenile salmon, including northern pikeminnow, largemouth bass, and smallmouth bass. These three species are non-native predators of chinook salmon and other salmonids that the state is actively working to extirpate. While increased TDG is expected to negatively impact these species, this would further advance the state's goal of recovering salmon and orcas. The EIS should analyze this as a potential benefit, and the agency should explicitly state if an impacted species is native or not.

#### Conclusion

We greatly appreciate your efforts to recover both salmon and orcas by increasing spill on the Snake and Columbia Rivers. We are pleased to see the state pursuing TDG standards of 125%. We look forward to seeing the draft EIS and providing additional comments.

Sincerely,



Robb Krehbiel  
Northwest Representative  
Defenders of Wildlife

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<sup>1</sup> Priority salmon runs were identified by NOAA and WDFW. A list of those priority runs can be found here: [https://www.westcoast.fisheries.noaa.gov/publications/protected\\_species/marine\\_mammals/killer\\_whales/recovery/srkw\\_priority\\_chinook\\_stocks\\_conceptual\\_model\\_report\\_list\\_22june2018.pdf](https://www.westcoast.fisheries.noaa.gov/publications/protected_species/marine_mammals/killer_whales/recovery/srkw_priority_chinook_stocks_conceptual_model_report_list_22june2018.pdf)

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