

September 25, 2019

Maia Bellon, Director
Heather Bartlett, Water Quality Program Manager
Washington State Department of Ecology
P.O. Box 47600
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RE: Draft Environmental Impact Statement (DEIS) for Changes to Total Dissolved Gas Water Quality Standards and Other Matters

Director Bellon and Program Manager Bartlett,

Thank you for the opportunity to provide comments to the Department of Ecology about the Draft Environmental Impact Statement (DEIS) for changes to the state’s total dissolved gas (TDG) water quality standards. **We strongly support Alternative 3 to increase the state’s TDG standards to 125 percent, with two modifications: (1) remove language suggesting the standard is contingent on a “legally valid” federal BiOp and (2) calculate the standard based on the 12 highest hourly TDG measures in a calendar day, not the proposed 2-hour average.** Increasing these standards will allow for more water to be spilled over the Federal Columbia River Power System (FCRPS) dams on the Columbia and Snake rivers, which support critical salmon runs that Southern Resident orcas rely on. This change to the State’s TDG water quality standard would also achieve Recommendation 8 of the Southern Resident Orca Task Force, which the Orca Salmon Alliance supported.

The Orca Salmon Alliance is a coalition of 17 Washington and national organizations. We work together to save Southern Resident orcas by recovering their primary food, Chinook salmon. Our members are actively engaged in the Southern Resident Orca Task Force, including as representatives in all three work groups, as well as other policy, educational, and advocacy efforts to save the whales.

Last month, the Center for Whale Research reported three more Southern Residents as missing and presumed dead: a matriarch female (J17) and two adult males (K25 and L84). The population of endangered Southern Residents is just 73 orcas now, the lowest it has been since the end of the horrific captures in the 1970s. The top threat to their survival and recovery is widely recognized as the decline of their primary prey – Chinook salmon. The National Oceanic and Atmospheric Administration (NOAA), the federal agency charged with overseeing management and recovery for the Southern Resident orca population, recognized in their 2008 Recovery Plan that “[p]erhaps the single greatest change in food availability for resident killer

whales since the late 1800s has been the decline of salmon in the Columbia River basin.”¹ Without forward-thinking leaders and strong collective near-term actions, the Southern Residents will go extinct within our lifetime.

Allowing for increased spill up to 125 percent TDG is a critical step towards Columbia and Snake river salmon recovery. And increasing salmon runs in the Columbia Basin is essential to preventing the extinction of the Southern Resident orcas. The Columbia Basin is the most heavily dammed river system in the world. The FCRPS dams and their reservoirs directly and indirectly kill a high percentage of the out-migrating smolts. A 2014 study found that 76 percent of Snake River Chinook juveniles that passed through the FCRPS died as a result of their out-migrating experience.² Dams reduce water velocity, prolong salmon migration, alter estuary timing, increase water temperatures, exacerbate predation, and increase stress and injury. Increasing the proportion of river flow spilled over crests of dams more closely mimics the natural flow and delivers smolts more quickly and safely to the ocean. Scientific research collected annually by the Fish Passage Center since the mid-1990s demonstrates conclusively that additional spill significantly increases juvenile salmon survival and subsequent adult returns.³ For all these reasons, we strongly support increasing the TDG water quality standard to 125 percent.

The Orca Salmon Alliance, however, offers two suggested edits to Alternative 3. The first is to strike the language in the proposed rule that states: “In addition to complying with the requirements of this chapter, the tailrace maximum TDG criteria applied at dams operated by the U.S. Army Corps of Engineers must be in accordance with legally valid Endangered Species Act consultation documents on Columbia River system operations, including operations for fish passage.” This language is vague and could be read to imply the state’s TDG limit change is contingent and/or subject to reversal based on the legality of yet-to-be-seen federal BiOp documents. For the past 20 years, the federal agencies that manage the FCRPS have undergone ESA consultation but failed to produce a legally valid BiOp. The additional protection for salmon of permitting spill up to 125 percent TDG should not be contingent on a legally valid 2020 BiOp because, after all, if the BiOp fails once again to secure action—across “the four Hs”—to avoid jeopardizing the extinction of the system’s 13 listed salmon and steelhead populations, the added protection of increased spill will only be *more* necessary, not less.

¹ National Oceanic and Atmospheric Administration. (2008). *Recovery Plan for Southern Resident Killer Whales* (*Orcinus orca*). Available at: https://www.westcoast.fisheries.noaa.gov/publications/protected_species/marine_mammals/killer_whales/esa_status/srkw-recov-plan.pdf.

² Schaller, H.A., C.E. Petrosky, and E.S. Tinus. (2014) *Evaluating river management during seaward migration to recover Columbia River stream-type Chinook salmon considering the variation in marine conditions*. *Can. J. Fish. Aquat. Sci.* 71: 259-271.

³ See e.g. CSS (Comparative Survival Study Oversight Committee). (2018). DRAFT 2018 Annual Report. Comparative Survival Study of PIT-tagged Spring/Summer/Fall Chinook, Summer Steelhead, and Sockeye. BPA Project #19960200. Available at: <http://www.fpc.org/documents/CSS/DRAFT2018CSSReportv1-1.pdf>

Washington State's water quality standard for TDG in the Columbia Basin should be based on science and not the legal adequacy of a separate federal process. The Alliance recommends striking this language to avoid confusion, uncertainty, and unintended negative consequences for salmon and orcas.

Our second proposed modification is that the TDG standard be based on the average of the 12 highest hourly TDG measures in a calendar day, not the proposed 2-hour average. Changing the implementation criteria from a 12-hour average in 2019 to a 2-hour average in 2020 will likely result in lower spill volumes, lead to reduced benefits to salmon, and undermine the purpose of the Flexible Spill Agreement and its adaptive management experiment, i.e. the ability to learn from comparisons of results from the injunctive order (2018), 2019 Flex Spill operations, and 2020 Flex Spill operations. There is no stated scientific basis for changing how the standard is calculated and this change might significantly reduce any benefit to salmon, jeopardize the Flexible Spill Agreement, and reduce the integrity of any scientific learning based on the experimental increased-spill regime. A calculation based on the 2 highest daily hours is contrary to the intent of the Orca Task Force to bring Washington's and Oregon's water quality standards into alignment and to maximize salmon survival to benefit to the orcas.

We greatly appreciate your leadership to recover both salmon and orcas. We strongly support Alternative 3 to increase Washington's TDG standards to 125 percent. **Increasing spill over the Columbia and Snake rivers' dams will directly benefit seven of the fifteen most important salmon runs in the orcas' current diet.** We look forward to working with you and your staff further to prevent the extinction of orcas and salmon.

Sincerely,

Member Groups of the Orca Salmon Alliance:

Natural Resources Defense Council
Center for Biological Diversity
Defenders of Wildlife
Earthjustice
Friends of the San Juans
Oceana
Orca Network
Puget Soundkeeper Alliance
Save Our Wild Salmon
Seattle Aquarium
Sierra Club
Toxic Free Future
Washington Environmental Council
Whale and Dolphin Conservation
Whale Scout
Wild Orca