

Washington Environmental Council

Please accept comments from Washington Environmental Council on Draft EIS for Short-Term Modification to Total Dissolved Gas Levels in the Columbia and Snake Rivers.

Cheers,

Rein Attemann

February 28, 2019

Heather R. Bartlett
Water Quality Program Manager
Department of Ecology
Water Quality Program
P.O. Box 47600
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Comments submitted electronically

RE: Draft Environmental Impact Statement for Short-Term Modification to Adjust Total Dissolved Gas Levels in the Columbia and Snake Rivers.

Dear Director Bartlett,

Washington Environmental Council (WEC) appreciates this opportunity to provide written comments to the Department of Ecology (Ecology) on the draft Environmental Impact Statement (DEIS) for short-term modification of total dissolved gas (TDG) water quality standards for federal dams on the lower Snake and lower Columbia rivers through 2021. Increasing these standards will allow for more water to be spilled over dams on the Columbia and Snake rivers, both of which support critical salmon runs that Southern Resident orcas rely on.

WEC is a 501(c)(3) organization founded in 1967. Our mission is to protect, restore, and sustain Washington's environment for all, and we are committed to clean water protections for Puget Sound and for all Washington State waters. WEC is a member of Governor Inslee's Orca Recovery Task Force and fully supports the final report and recommendations that were delivered to Governor Inslee in November, 2018.

WEC is also a member of the Orca Salmon Alliance, a coalition of 17 local, state, and national organizations, is working to save Southern Resident orcas by recovering y their primary food, Chinook salmon. We also support Orca Salmon Alliance's comment letter on this issue.

Of the many recommendations provided by the Orca Recovery Task Force to Governor Inslee, **Recommendation 8** to increase spill to benefit Chinook for Southern Residents by adjusting Total Dissolved Gas allowances at the Snake and Columbia River dams, is one of the most effective near-term actions the state can take to provide more salmon for orcas.

While Alternative 2, increasing the state's TDG standards to 120% for the year 2019, is a good interim measure, WEC supports **alternative 3 to increase the state's TDG standards to 125% for the year 2019** as science supports this level and orcas need this standard adjusted sooner verses later. While WEC

supports increasing the state TDG standard to 125% based on information shared during the Orca Recovery Task Force, we support both Alternative 2 as an interim measure and Alternative 3 in the long term.

Historically, swift river currents in the Columbia and Snake River basins quickly carried smolts (recently hatched salmon) to the ocean, where they matured and migrated further out to sea. Slackwater created by dams has significantly increased the amount of time it takes for smolts to safely migrate to the ocean and increased their exposure to lethally warm water and predators (particularly invasive piscivorous fish). Spilling water over the dam spillways (instead of through turbines to produce energy) more closely mimics the natural flow of big rivers, like the Columbia and Snake, and delivers smolts more quickly and safely to the ocean. We need more fish that are 'spilled' to have any chance of boosting the number of fish that return to the river as adults to spawn. Scientific research conducted annually since the mid-1990s demonstrates conclusively that additional spill significantly increases juvenile salmon survival and subsequent adult returns.

Washington's current TDG standards no longer reflect the best available science. Recent increases in spill show that we have been overly conservative with our standards. **The best available science suggests that spill up to 125% TDG would result in 2 – 2.5 times more adult Chinook salmon returning than current levels without adversely affecting other species.** From Ecology's EIS, "When spill is increased to 125% TDG 24 hours per day/seven days a week in the spring, the Comparative Survival Study juvenile fish passage survival model predicts a two to 2.5-fold increase in Snake River spring chinook salmon abundance above the levels resulting from 2014 FCRPS BiOp spill levels, and smaller projected increase when spilling to existing gas standards or 120% TDG 24 hours per day. Steelhead smolt-to-adult returns are also predicted to increase significantly, but less dramatically than Chinook salmon." The studies cited throughout the EIS note that that increased TDG and prolonged exposure to saturated water is detrimental to aquatic life. However, the majority of these studies suggest that spill up to 125% is safe for most native aquatic species, particularly salmonids. The majority of these studies are also from the 1990's and do not reflect the scientific community's current understanding of spill or TDG.

It is important to note that the species that would be negatively impacted by increased TDG are non-native species, such as northern pikeminnow, largemouth bass, and smallmouth bass. These three species are predators of juvenile salmon, and the state is actively encouraging efforts to reduce populations of these fish through a bill currently in the legislature.

Increasing salmon runs in the Columbia Basin is essential to preventing the extinction of the Southern Resident orcas. During the winter and early spring, these orcas forage on Chinook salmon from Cape Flattery to Monterey Bay. Historically, the Columbia Basin produced the most Chinook salmon on the west coast, providing a large and critical source of food for the orcas over winter. Increasing spill over the Lower Snake and Lower Columbia dams would benefit seven of the fifteen most important salmon runs in the orcas' current diet.



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We greatly appreciate your leadership to recover both salmon and orcas. Increasing spill in the Columbia Basin will further mitigate the impact these dams have had on endangered salmon runs and provide more food to orcas in the very near-term. **Again, WEC supports alternative 2 in 2019 and Alternative 3 in the long run to increase TDG standards to 125%.**

Sincerely,

Rein Attemann
Puget Sound Campaign Manager
Washington Environmental Council