

## Dr O'Halloran

Please accept my comments concerning the Total Dissolved Gas Water Quality Standard Draft EIS (Proposed Rule Change A019-02). I strongly support Alternative #3 with its language amended as noted below. I oppose all other Alternatives 1, 2 and 4. What we really need to do is remove dams along the Snake river!

I believe that we must restore the abundant Chinook salmon populations in the Snake River and Columbia River Basin. This is an especially urgent need in order to help the Southern Resident orcas survive and recover. Rebuilding these salmon runs will also benefit tribal and non-tribal fishing communities across Washington State and the Pacific Northwest, as well as other wildlife. (Recently 110 gray whales were found dead of apparent starvation on our west coast!) We should be supporting vibrant wild salmon industries for Washington State and America.

I support the Department of Ecology proposal to change its water quality standards for total dissolved gas (TDG) to allow TDG up to 125% in the tailrace of dams on the Columbia and Snake Rivers on a permanent and year-round basis. I agree with the immediate need to get this in place in time for the Spring 2020 juvenile out-migration to the Pacific Ocean. This will improve the number of young salmon that make it to the Pacific Ocean, and will boost later returns of adult salmon. The best available science confirms that this revision to the TDG standard is biologically appropriate for both the spring and summer voluntary spill seasons.

Increasing the TDG water quality standard to 125% is a critical near-term action in order to allow expanded spill and to increase juvenile salmon survival and adult returns in the next several years.

I strongly support Alternative #3 to allow TDG levels up to 125% of saturation in the tail race of each of the eight dams on the lower Snake and lower Columbia Rivers beginning in 2020 provided, however, that Ecology 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.

Thank you for your consideration of these comments.