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September 26, 2019

Ms. Susan Braley
WA State Dept. of Ecology
Water Quality Program
PO Box 47600
Olympia, WA 98504-7600
Submitted via ws.ecology.commentinput.com/

Re: Chapter 173-201A WAC, Water Quality Standards for Surface Waters of the State of Washington

Public Utility District No. 1 of Chelan County (Chelan PUD) appreciates the opportunity to provide comments on the Department of Ecology's (Ecology) proposed rulemaking to amend the numeric criteria for total dissolved gas (TDG) in the Snake and Columbia Rivers under WAC 173-201A-200(1)(f). We would like to offer one technical comment and some points for your consideration.

Technical

In accordance with Washington State water quality standards and attainment methods, a hydropower operator is only responsible for TDG levels created by the operation of their project. Specifically, Section 90.48.422 of the Revised Code of Washington (RCW) states:

> *With respect to federal energy regulatory commission licensed hydropower projects, the department may only require a person to mitigate or remedy a water quality violation or problem to the extent there is substantial evidence such person has caused such violation or problem.*

This raises an important question. If an upstream licensed hydroelectric project is utilizing the special fish passage exemption for spring spill and the next downstream hydroelectric project is not, how will Ecology determine compliance with the water quality standards at the downstream licensed project? The proposed rule should be modified to make it clear that Ecology will only consider TDG associated with the downstream project when measuring compliance with the standard.

Other Considerations

Chelan PUD Project Operations Dictated by Habitat Conservation Plans
Over a decade ago, Chelan PUD proactively coordinated with numerous federal and state agencies and

tribes[1] to reach a historic agreement "intended to constitute a comprehensive and long-term adaptive management plan for Plan Species [summer and fall Chinook salmon, sockeye salmon, coho salmon and steelhead] and their habitat as affected by the project."[2] Along with one upriver hydropower project, these are the first HCPs for hydropower in the nation. Although Chelan PUD's HCPs are not considered "recovery plans" and Chelan PUD is under no obligation to implement recovery actions under the specific provisions of the HCPs, the National Marine Fisheries Service (NMFS) has recognized the benefits of the HCPs and their contributions to recovery[3].

Chelan PUD's HCP agreements are the result of our conscious decision to pursue salmon and steelhead protections "above and beyond" the usual Endangered Species Act (ESA) Section 7 consultations. Authorized under Section 10 of the ESA, the objective of the HCPs is to achieve No-Net-Impact (NNI) on salmon and steelhead migrating through the Rocky Reach and Rock Island project areas for 50 years. The outcome-based survival standard provides:

- 91% combined adult and juvenile project survival achieved by project improvements.
- A "no jeopardy" determination by NMFS as a result solely of the project survival standard and facility improvements, such as the installation of an innovative juvenile bypass system to implement the HCPs.
- A commitment made by Chelan PUD that goes above and beyond the ESA "no jeopardy" standard by committing to 9% compensation for unavoidable project mortality through hatchery and tributary enhancement programs.

Chelan PUD's **spill timing and percent of total river flow are specified in its HCPs for each project**. Additionally, survival standards are based on measured Juvenile Project Survival or Combined Adult and Juvenile Project Survival (the "Project" includes 1,000 feet below the tailrace of the most upstream dam, through the reservoir, to 1,000 feet below the tailrace of Chelan PUD owned Rocky Reach or Rock Island Dams).

While implementing the terms of the HCPs to provide spring species protection at varying spill levels based on a percent of total river flows, Chelan PUD conducted juvenile project survival studies from 2002 through 2011 at Rocky Reach and Rock Island. Over a nine-year period, Chelan PUD completed at least 17 studies at the Rock Island Project, testing first a 20 percent and then a 10 percent spill level for spring migrating species (yearling Chinook, steelhead, sockeye). Standards were achieved at 10 percent spill of total river flow and during the spring, Rock Island continues to operate in this manner. At Rocky Reach, Chelan PUD carried out a total of 14 HCP survival studies for spring migrating species under varying levels of spill, including zero percent spring spill operations. Ultimately survival standards were achieved in 2011 with zero spring spill due to the operation of Chelan PUD's innovative juvenile fish bypass system. Survival of juvenile salmon using the bypass system is nearly 100%, with continuous operation between April 1st and August 31st regardless of total river flows or TDG levels in the river. This demonstrates the ability of each Project to use its own set of site-specific tools to meet, and in some instances exceed, the metrics for fish passage survival.

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[1] Parties to the HCPs are: Chelan PUD, United States Fish and Wildlife Service, National Marine Fisheries Service, Washington Department of Fish and Wildlife, Confederated Tribes of the Colville Reservation, and Confederated Tribes and Bands of the Yakama Indian Nation.

[2] Introduction to the Rocky Reach and Rock Island HCPs, Paragraph A.

[3] Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan, 72 Fed. Reg. 57,303 (2007).

Upper Columbia River Spring Chinook Evolutionary Significant Unit (ESU)
Chelan PUD has an interest in monitoring all risk factors in the Upper Columbia River that may impede the recovery of the Upper Columbia River spring Chinook ESU. When weighing the potential benefits of increased spill, Ecology should give appropriate consideration to the risks associated with sustained exposure of increased TDG on juvenile migrants and increased spill on adults returning to spawn through the entire Columbia River system. In fact, increased spill is often not the most effective tool to pass fish, as demonstrated by the successful survival numbers at Rocky Reach and Rock Island during periods of zero or minimal spill. All dams are different, but successful alternatives to spill, where available, should be preferable and encouraged by regulators.

Conclusion

Implementation of a new TDG standard will have implications for hydropower operators in the Columbia and Snake River systems. From a compliance perspective, we encourage Ecology to clarify that downstream projects will not be held accountable for TDG introduced by upstream projects utilizing the spring spill fish exemption. Further, we ask Ecology to bear in mind that Mid-Columbia habitat conservation plans govern spill decisions at the Rocky Reach and Rock Island projects. These HCPS have been highly successful for fish, in part because they avoid unnecessary spill. Finally, in preparing its final environmental impact statement, Ecology should consider whether increased spill and higher TDG standards are the best scientific decision for salmon and steelhead.

Sincerely,

Justin Erickson

Justin Erickson
Managing Director – District Services