

Clean Water Act 401 Certification for Columbia and Snake River Dams

“[U]nder a climate change scenario, the long-recognized and largely unaddressed problem of high water temperatures in the [Columbia and Snake rivers] becomes an ever-increasing threat to the survival of salmon.” — Fish Passage Center, *Review of April 2016 Draft of NOAA Fisheries report 2015 Sockeye Salmon Passage Report*, p. 1 (May 4, 2016).

The decline of Columbia Basin salmon runs contributes to the starvation of Puget Sound orcas and recently forced Washington to close the Columbia River to fall salmon fishing.¹ Washington should use its authority under the Clean Water Act to do what the Trump administration and federal agencies cannot or will not do: protect and restore salmon.

As an initial matter, Ecology routinely issues § 401 comprehensive certifications for hydroelectric dams that address whether the “activity” as a whole complies with water quality standards. Ecology successfully defended this authority at the U.S. Supreme Court.² Furthermore, protective use of § 401 authority has successfully withstood decades of legislative and legal attacks from interests seeking to diminish states’ abilities to protect the health of state waterways.³

Climate change and dams combine to warm the Columbia and Snake Rivers to unsafe levels.⁴ During the summer, the rivers are frequently so warm that salmon are unable to migrate upriver to spawn.⁵ When river temperatures exceed 20°C for several days at a time—as happens with increasing frequency due to climate change⁶—salmon have difficulty migrating upstream and begin succumbing to stress and disease.⁷ In the early 2000s, the U.S. Environmental Protection Agency (EPA) completed a draft Columbia and Snake River Temperature Total Maximum Daily Load (TMDL). EPA concluded, “The majority of the temperature increases (as much as 6 °C) are caused by the larger dams[.]”⁸

Despite decades of litigation, federal agencies have not complied with the Endangered Species Act, Clean Water Act, or recovered the Columbia’s once-mighty salmon runs.⁹ EPA has not issued a final temperature TMDL. In fact, EPA appealed the district court’s order to complete the temperature TMDL. Even if the Ninth Circuit agrees with the district court, at best, EPA will issue

¹ WDFW, [News Release: Most of the Columbia River closing to salmon and steelhead fishing](#) (Sept. 11, 2018).

² See *PUD No. 1 of Jefferson County v. Wash. Dep’t of Ecology*, 511 U.S. 700, 707–08 (1994) (explaining that states may regulate the impacts of a project as a whole under Section 401, so long as a discharge is involved). The fact that the § 401 certifications at issue were triggered by federal NPDES permits, rather than FERC licenses, has no bearing on the scope of Ecology’s authority under § 401. Cf. *Or. Nat. Desert Ass’n v. Dombeck*, 172 F.3d 1092, 1097–98 (9th Cir. 1998) (explaining that § 401 certifications can impose far-reaching protections for water quality, provided a discharge triggers the state’s § 401 authority).

³ See, e.g., *S. D. Warren Co. v. Me. Bd. of Env’tl. Prot.*, 547 U.S. 370 (2006); see also [Congressional Research Service, Clean Water Act Section 401: Background and Issues](#), pp. 5–6 (2015).

⁴ Fish Passage Center, [Review of April 2016 Draft of NOAA Fisheries Report](#), p. 1 (May 4, 2016).

⁵ Fish Passage Center, [Requested data summaries and actions regarding sockeye adult fish passage and water temperature issues in the Columbia and Snake rivers](#) (Oct. 28, 2015).

⁶ John Yearsley, [A semi-Lagrangian water temperature model for advection-dominated river systems](#), 45 *Water Resources Research*, pp. 15–16 (2009).

⁷ National Marine Fisheries Service, [2015 Adult Sockeye Salmon Passage Report](#), pp. 20–22 (2016).

⁸ U.S. EPA, [Preliminary Draft Columbia/Snake Temperature TMDL](#), p. 39 (July 2003).

⁹ See *NWF v. NMFS*, 184 F. Supp. 3d 861 (D. Or. 2016); *Columbia Riverkeeper v. Pruitt*, No. 17-00289 (W.D. Wash. 2018).

the TMDL in two years. Washington listed the Columbia River as impaired by high temperatures in 1994, and Washington and Oregon asked EPA for a temperature TMDL over 20 years ago.¹⁰

The state should not wait for EPA to act. Section 401 provides Washington the critical legal tool to address temperature impacts from federal dams—a tool Washington has already used for private dams on the river. In fact, even after EPA issues a final TMDL, the state will need to incorporate those requirements into 401 certifications to turn them into binding measures.¹¹

Many large- and small-scale modifications to the structure and operation of the dams and reservoirs could improve water quality and salmon survival. Ecology should use the § 401 certification process to require the federal agencies to model and identify how modifying fish ladders, selectively drawing down certain reservoirs, increasing summer flows, dam removal, and other measures could reduce temperature and enhance fish survival. Ecology's [§ 401 certifications for other, non-federal dams on the Columbia River](#) contain similar conditions to address temperature. In light of Ecology's February 1 deadline, Ecology should consider a streamlined approach that includes the following conditions:

- When EPA issues a final temperature TMDL, the load allocations and any implementation plans of that TMDL shall become conditions of the certifications.
- Pursuant to WAC 173-201A-510(5), the federal agencies shall, within two years, develop and submit to Ecology a water quality attainment plan (WQAP) for each dam that provides a detailed strategy for achieving compliance with temperature standards at each reservoir, fish passage facilities, and tailwaters, including:
 - If Ecology determines, pursuant to WAC 173-201A-510(5)(c) and (d), that the WQAPs submitted by federal agencies do not ensure compliance with all applicable standards or provide a reasonable assurance that each dam will not cause or contribute to a violation of the water quality standards, Ecology may revoke or reopen the certification.
 - If Ecology determines that the WQAP submitted by the federal agencies would ensure compliance with the temperature water quality criteria, and no other legally enforceable mechanism to achieve water temperatures consistent with salmonid summer migration has been created by the BiOp or other federal processes, the federal agencies must implement the measures in the WQAP as soon as possible, or within a timeframe specified by Ecology.

Ecology should also include conditions to hold the federal agencies accountable for compliance with other standards, including total dissolved gas, antidegradation, and designated use protection. Finally, Ecology should include reopener language, similar to other hydropower certifications, to provide reasonable assurance the dams will comply with standards.

¹⁰ *NWF v. U.S. Army Corps of Eng'rs*, 132 F. Supp. 2d 876 (D. Or. 2001).

¹¹ U.S. EPA, [Preliminary Draft Columbia/Snake Temperature TMDL](#), p. 49 (explaining that hydroelectric dams are considered "nonpoint sources" under the Clean Water Act and therefore the TMDL assigns load allocations that are not implemented through NPDES permits); see also *id.* at viii (explaining "TMDLs are not self-implementing. Nor do they impose any binding legal requirements under federal law."); *id.* at vii (stating "the TMDL is implemented through the NPDES Permit Program, State Water Quality Standards Certification Program, States Non-point Source Management Program and other appropriate mechanisms.").