Northwest RiverPartners Urges Practicality and Transparency Over EPA River Temperature Report for Columbia & Snake River Dams

Vancouver, WA, May 20, 2020 – A report released by the Environmental Protection Agency on May 18 entitled "Total Maximum Daily Load (TMDL) for Temperature in the Columbia and Lower Snake Rivers" outlines river temperature limits and seeks public comment. The report is related to a recent decision by the Washington State Dept of Ecology to add a river temperature provision into an EPA permit for Columbia River Basin dams.

The TMDL is required because Washington and Oregon identified portions of the Columbia and lower Snake Rivers as impaired because temperatures exceed the states' water quality standards. These temperature requirements are designed to protect the beneficial uses in these waters, in particular salmon migration and spawning.

River temperatures are a significant concern. In 1994, due to record high temperatures, approximately 466,000 adult fish perished in the undammed Fraser River before reaching their spawning grounds. In 2015, a quarter of a million Snake River sockeye salmon died during a heatwave. Large fish die-offs were also recorded in Alaska last summer due to heatwaves.

Northwest RiverPartners supports efforts to protect salmon from extreme temperatures but takes issue with the standards that have been set by Washington and Oregon. The TMDL report clearly demonstrates that the water entering the U.S. from Canada is already too warm "by a substantial margin" to meet the Washington state standard in the summer months. The same is true for the water entering the lower Snake River dams from Idaho.

This means that the Washington and Oregon standards cannot be met, regardless of the existence of the lower Columbia and lower Snake dams.

Given these conditions, the EPA notes the significant challenge of meeting the water quality standards in Washington and Oregon and has suggested that the states reconsider their respective standards.

While this is a sophisticated and often complex process between state and federal entities, what remains clear is that the newly proposed burden for regional hydropower operators is unrealistic, unworkable, and unfair to the communities that depend on affordable hydroelectricity to help make ends meet.

Conflicting Research

As part of this report, the EPA attempted to estimate river temperatures with and without dams in place. The agency also tried to allocate temperature responsibility to each dam but acknowledged the task as difficult and imperfect.

The EPA's model estimated that the dams can cool or heat water, depending on the month and the air temperature condition. In general, the model predicted that during the August-September period, dams cause river temperatures to exceed established targets. It's important to note, however, that the great majority of salmon smolts and adults do not migrate during these peak temperature months.

Other studies have shown that the dams have a neutral or moderately positive effect on water temperature. As an example, a 2002 peer-reviewed study performed by Pacific Northwest National Laboratory showed that dams within the Columbia and Snake river basins tend to moderate extreme water temperatures.

Again in 2002, researchers compared pre-lower Snake River dam measurements of water temperature from 1955-1958 to measurements taken after the lower Snake River dams were constructed. They found no evidence that river temperatures had increased as a result of the dams, and instead appeared to have remained unchanged or slightly lower, even though air temperatures had increased. The team identified air temperature and flow levels as the biggest influences on temperatures in the river.

Washington and Oregon's decision to include river temperatures in their permitting process threatens to needlessly reduce the availability of a carbon-free energy resource and increase electricity bills for millions of customers. These decisions could also directly contradict efforts by both states to reach their bold clean energy goals.

That outcome would be a step in the wrong direction for the climate, for salmon, and for the social welfare of the region.

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About Northwest RiverPartners

Northwest RiverPartners (NWRP) is a member-driven organization that serves not-for-profit, community-owned electric utilities in Washington, Oregon, Idaho, Montana, Nevada, and Wyoming. We also proudly represent partners that support clean energy, low-carbon transportation, and agricultural jobs.
http://nwriverpartners.org