

# Laurie Kerr

Dear Department of Energy,

Orca scientists have made it clear that our Southern Resident Orca (SROs) are in a starvation crisis. Because SROs' diet consists of at least 80% chinook salmon, having an ample chinook salmon population is key for their survival, as well as that of many other species, and indeed, the entire PNW ecosystem. The Columbia/Snake chinook population is crashing this year, with fewer than 50,000 expected to return, about 1/10 of the 10-year average. Accordingly, I urge you to exercise Washington's authority under Clean Water Act section 401 to help ensure the Columbia Basin's federal dam operators take action to reduce rising water temperatures, protect salmon, and help save the Southern Resident orcas from extinction.

When river temperatures exceed 70F for several days at a time as happens with increasing frequency due to climate change, salmon have difficulty migrating upstream and begin succumbing to stress and disease. According to the Fish Passage Center, an independent government agency, "under 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."

On the Columbia and Snake Rivers, hydroelectric dams make the heat pollution even worse. Federal dams on the Columbia and Snake rivers have never obtained water quality certifications under Section 401 of the Clean Water Act leaving Washington without authority to protect its own water quality and fisheries. Until now.

According to EPA's own draft analysis, summer temperatures in portions of the Columbia and Snake rivers are up by 1.5 degrees Celsius since 1960 because of the combined impacts of climate change and dams. Temperatures are so high, sometimes exceeding 70 degrees, that they kill migrating salmon, such as in the sustained hot summer of 2015.

The EPA's own analysis also shows that removing the 4 Lower Snake River dams (LSRDs) would most effectively reduce temperatures to the salmon survival range. Removing the 4 LSRDs would also assist with lowering the temperatures behind the 4 mainstem Columbia dams. The 4 LSRDs are no longer needed for hydropower; they generate only about 3% of the system's power, which is at about 16% surplus. Nor do they provide any flood control. The irrigation provided at Ice Harbor Reservoir to about 37,000 acres can still be brought about post dam breaching via lengthened pipes and additional pumps. It is imperative for the sake of having our SROs and salmon survive that the 4 LSRDs be breached in 2019.

I therefore request that DOE enact water temperature standards that will provide incentives for the federal operator, USACE, to breach the 4 LSRDs to come into compliance with the Clean Water Act and Endangered Species Act. Lower water temperatures in the Columbia and Snake Rivers will help save salmon, orcas, and the entire PNW ecosystem. We in WA state must be leaders, while the federal government is failing to protect our irreplaceable environment and wildlife.