



July 23, 2018

Sent via electronic email to: WR401Program@waterboards.ca.gov

Ms. Michelle Siebal
State Water Resources Control Board
Division of Water Rights – Water Quality Certification Program
P.O. Box 2000
Sacramento, CA 95812-2000

RE: KLAMATH RIVER RENEWAL CORPORATION LOWER KLAMATH PROJECT - FERC Project#14803 | Draft Water Quality Certification for Federal Permit or License

Dear Ms. Michelle Siebal,

Thank you for the opportunity to comment on the Draft Water Quality Certification for the Klamath River Renewal Corporation.

Orca Conservancy is an all-volunteer 501(c)(3) Washington State non-profit organization, established in 1996, with the mission of working on behalf of *Orcinus orca*, the killer whale, and protecting the wild places on which it depends. Orca Conservancy currently represents over 20,000+ members/supporters and collaborates with some of the world's top research institutions and environmental groups to address the most critical issues now facing wild orcas.

The organization's urgent attention is on the population of endangered Southern Resident killer whales (SRKW). The Southern Resident population is comprised of three pods (identified as J, K, and L pods) and is arguably the most familiar killer whale population to the general public. After over a decade of federal protection, the population is still declining, with 75 members total as of July 1, 2018.

Orca Conservancy strongly supports dam removal, and greatly appreciates the opportunity to comment at this early stage in the process.

One consideration lacking in the draft is the impact on Endangered Southern Resident killer whales of changes in Chinook and coho abundance. We expect that well-managed dam removal will increase salmonid abundance. Klamath River runs are important to K and L pods, which travel back and forth along the California, Oregon and Washington coasts in winter and spring, a time when females require additional prey to nurse newborn calves. As Klamath and Sacramento runs have declined, these females

have failed to rear calves successfully. It is likely that abundance of spring run Chinook is more important to SRKWs than fall run Chinook, and that Chinook is more important than coho, although the health of all of these runs are important to the recovery of SRKWs.

Improving biological integrity is an important goal. *Ceratanova shasta* is an important parasite that limits juvenile salmon survival. High flows can significantly reduce *C. shasta* abundance and hence increase salmonid survival. Flow ramp-up rates need to be considered, as they determine the time available to fish to seek low flow habitat. Flow ramp-down rates also need to be considered, as they provide time to avoid stranding as water levels drop.

Habitat restoration plans should be developed as an approach to addressing 303(d) sediment and temperature concerns.

We support adaptive management and the proposed monitoring plans required to support it. We would add *C. shasta* to the monitoring protocol, and suggest consideration of the use of DIDSON sonar as a technique to monitor adult salmonid migration. Tag readers could be used to monitor returns of hatchery salmon in the lower portion of the river.

We support riparian restoration as an approach to improve temperature. We note that changes within the watershed not related to the project may also affect temperature, and these changes should not be a barrier to implementation of dam removal. Shade trees will take more than three years to reach significant size, so their role in temperature regulation will not likely be fully achieved within that time frame.

The Bureau of Reclamation is currently revising water management protocols to balance survival of suckers and salmonids. Their models should be incorporated into drawdown protocols for wet and dry years. In addition to the consultations listed, the ongoing work of Washington's task force on Southern Resident Killer Whales should be considered.

Baseline fish surveys should be undertaken immediately in addition to the post removal surveys.

We agree that minimal herbicide use should be achieved to protect both human and ecosystem health.

We look forward to commenting again in more detail at the next opportunity.

Sincerely,

David E. Bain

Dr. David E. Bain
Vice-President, Orca Conservancy