environmental protection information center

Keeping Northern California Wild Since 1977

October 9, 2026

***Sent Via Email to:*** *reviewadvice@deltacouncil.ca.gov*

**To:** Delta Science Program – Independent Scientific Peer Review Panel
**Re:** Public Input on New Lines of Evidence for Fish Effects from Long-Term Operations of the Central Valley Project and State Water Project

Dear Independent Review Panel:

EPIC submits these comments concerning the scientific methods used to evaluate effects on fish from long-term operations of the Central Valley Project and State Water Project. The Trinity River is the Klamath River's largest tributary and an integral part of the Klamath ecosystem. Yet Trinity River water is exported from the Klamath Basin through the CVP to support water deliveries and operations in the Sacramento River system. The ecological consequences of those exports cannot be understood by examining only the receiving watershed.

The removal of four Klamath River dams in 2024 has created an extraordinary opportunity to recover wild salmon populations throughout the basin. Recently documented Chinook salmon recolonization underscores the urgency of protecting the remaining wild populations and the cold, flowing water necessary to sustain their recovery. We recognize that this peer review primarily concerns new modeling approaches for evaluating Delta hydrodynamics, entrainment, fish mortality, and population responses. We request that the Panel identify the scientific limitations of these geographically focused analyses and recommend complementary assessments necessary to evaluate the broader ecological consequences of CVP operations.

**1. Evaluate cross-watershed consequences and prevent the displacement of ecological harm.** The August 2026 final draft Bay-Delta Plan expressly recognizes the risk of redirected impacts to the Trinity River. Section 4.4.10.1 requires Reclamation to ensure that implementation does not adversely affect Trinity native fish and wildlife through changes in temperature or instream flows. Section 4.4.9.8 requires annual analysis demonstrating the absence of redirected impacts. However, meaningful scientific evaluation requires more than retrospective reporting. Reclamation should explicitly account for Trinity-derived water entering the Sacramento system and distinguish water supplied by interbasin diversions from water naturally available in Sacramento/Delta tributaries.

We request transparent water-source accounting, clearly defined baseline conditions, and comparison of operating alternatives to determine whether Delta flow or temperature benefits depend on additional Trinity exports, altered release timing, or depleted cold-water reserves. These assessments must prevent double counting and identify tradeoffs between benefits in the receiving watershed and losses in the source watershed.

**2. Incorporate reservoir carryover storage, cold-water availability, and climate change.** A 2023 Trinity River Restoration Program scientific synthesis (Asarian et al.) identifies substantial risks to salmon from altered temperature regimes and declining Trinity Reservoir storage. The analysis describes increasingly warm release temperatures as storage declines below approximately 1.25 million acre-feet, with particularly serious consequences for salmonid spawning and egg incubation. Existing Trinity temperature objectives, developed primarily around Chinook salmon, may not adequately protect coho embryos and juveniles throughout their life cycles. The Southern Oregon/Northern California Coast coho salmon recovery plan identifies the Upper and Lower Trinity populations as core populations essential to recovery.

Climate change compounds these concerns through warming temperatures, reduced snowpack, prolonged drought, and greater demand for limited cold-water supplies. Reclamation should evaluate increased Trinity instream flows, protective multi-year carryover-storage requirements, and reduced exports under a range of climate and water-year scenarios. Analyses should address both acute fish-health emergencies and cumulative, multi-year effects on salmon population viability.

**3. Recognize Trinity flows as essential to basin-wide Klamath salmon recovery.** Trinity River flows influence water temperature, migration conditions, and disease risk in the lower Klamath River. Reclamation's August 2026 fish-health flow augmentation further demonstrates the importance of Trinity releases to migrating salmon. Emergency releases cannot substitute for evaluating whether routine operations provide adequate conditions for population recovery.

Following Klamath dam removal, the basin's existing wild salmon populations are especially important to sustaining biological diversity and supporting recolonization of reopened habitat. Models should account for natural-origin fish, life-history diversity, freshwater survival, disease, temperature exposure, and the ecological consequences of altered seasonal flows. We request analysis of preventive flow management alternatives rather than reliance on emergency interventions after harmful conditions develop.

**4. Account for Indigenous knowledge, Tribal fisheries, and the human consequences of salmon declines.** Salmon are foundational to the food security, health, cultural continuity, and traditional practices of Klamath Basin Tribes. Research by Kari Marie Norgaard, conducted with and for the Karuk Tribe, documents the profound nutritional, social, cultural, and health effects associated with the loss of access to traditional foods, particularly salmon.

Norgaard's research underscores that the consequences of declining salmon populations extend far beyond ecological impacts, affecting Tribal food security, physical and cultural health, traditional practices, and intergenerational knowledge. These impacts should be recognized when evaluating the broader consequences of water management decisions. We encourage the Panel to recommend meaningful incorporation of Tribal science and traditional ecological knowledge in complementary watershed-scale analyses, with Tribal governments participating in developing objectives, reviewing methods, and interpreting ecological outcomes.

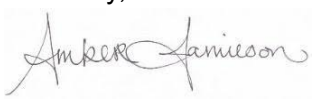
**5. Identify uncertainty, data gaps, and additional analyses needed for informed decisions.** We request that the Panel evaluate whether the new lines of evidence adequately represent cumulative mortality, delayed survival effects, climate uncertainty, water year-typing, alternative operating scenarios, and the limitations of spatially restricted population models. Where the analysis excludes Trinity River exports or their Klamath Basin consequences, those omissions should be explicitly disclosed. A geographically limited model should not be interpreted as demonstrating that project operations cause no significant ecological harm elsewhere.

**Conclusion**

Klamath dam removal has reopened a historic opportunity for salmon recovery. The success of that restoration depends not only on removing barriers, but on protecting cold water, functioning river ecosystems, and the naturally reproducing salmon populations that remain. The Trinity River cannot be treated simply as an external water supply for Sacramento–Delta operations. It is the largest tributary of the Klamath and an irreplaceable source of ecological resilience for the entire basin.

EPIC urges the Panel to identify the geographic limitations of the current analyses and recommend that Reclamation undertake transparent, climate-informed, cross-watershed assessments of CVP operations, including alternatives that increase Trinity River instream flows, maintain protective cold-water reserves, and reduce exports where necessary for salmon recovery.

Sincerely,



Amber Jamieson
Water Advocacy Director
Environmental Protection Information Center

Key references:
Asarian et al. (2023), Synthesizing 87 Years of Scientific Inquiry into Trinity River Water Temperatures; NOAA Fisheries (2014), SONCC Coho Salmon Recovery Plan; Norgaard (2005), The Effects of Altered Diet on the Health of the Karuk People; State Water Board (August 2026), Final Draft Sacramento/Delta Bay-Delta Plan, §§ 4.4.9.8 and 4.4.10.1.