



January 18, 2024

State Water Resources Control Board
Division of Water Rights
Attn: BayDelta & Hearings Branch
P.O. Box 100 Sacramento, CA 95812-2000

Via email: SacDeltaComments@waterboards.ca.gov

Re: Comment Letter – Sacramento/Delta Draft Staff Report:
California Water Impact Network

To the State Water Resources Control Board:

Summary

This letter provides comments of the California Water Impact Network (CWIN) on the September 2023 Draft Report and Supplemental Environmental Document (SED) prepared by staff of the State Water Resources Control Board (Board), entitled *Staff Report/Substitute Environmental Document in Support of Potential Updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary for the Sacramento River and its Tributaries, Delta Eastside Tributaries, and Delta*. This SED purports to fulfill the California Environmental Quality Act (CEQA) requirements of the Board under its own regulations, 14 Cal. Code Regs., § 15252, subd. (a), and to comply with other applicable laws (SED 1-6)

As recognized at the outset of the SED, the Board must not only fully comply with the laws and regulations that define its duties but also fulfill a mission to serve California's people and resources in the present and the future. That mission is "to preserve, enhance, and restore the quality of California's water resources and drinking water for the protection of the environment, public health, and all beneficial uses, and to ensure proper water resource allocation and efficient use for the benefit of present and future generations." (SED 1-1)

In places, the SED reflects awareness that insufficient action has been taken to protect the Delta watershed and ecosystem and to fulfill the Board's duties and broader mission. The SED recognizes, for example, that "average regulatory minimum Delta outflows are only about 5 MAF [million acre-feet], or about a third of current average outflows and less than 20 percent of average unimpaired outflows. Existing regulatory minimum Delta outflows would not be protective of the ecosystem, and without additional instream flow protections, existing flows may be reduced in the future, particularly with climate change and additional water development absent additional minimum instream flow requirements that ensure flows are preserved in stream when needed for the reasonable protection of fish and wildlife." (SED 1-9.)

In many other places, the SED in present form exemplifies evasion. Within a report that purports to fulfill CEQA requirements and comply with other applicable laws (SED 1-6) there are glaring omissions and avoidance at nearly every turn. The SED contains no appreciable public trust analysis, no meaningful evaluation of feasibility of alternatives, erasure of an entire river system (the Trinity), abdication of regulatory responsibilities for water quality beyond flows, and no substantive assessment of climate change impacts on the proposed standards and plan of implementation. Moreover, the SED fails to grapple with additional legal requirements and written commitments, including those for the Human Right to Water, the Delta Reform Act, racial equity, tribal rights, waste and unreasonable use, and fish passage. Absent a major course correction, the SED will remain incapable of complying with CEQA and other laws and will remain antithetical to the Board's adopted commitments.

To achieve a full integration of the Board's stated goals and existing law, the SED needs to become a fundamentally different document. The economic impacts section must be more balanced and part of an integrated public trust analysis. The chapters on environmental justice and tribal consultation must contain tangible actions incorporated into the implementation chapter. The sections on alternatives and implementation must eliminate infeasible scenarios and focus on regulatory actions to achieve meaningful ecosystem improvements. There must be a declaration that the entire watershed is over appropriated, restrictions on water rights as mitigation measures, and an inclusion of impacts in the Trinity River basin due to the ongoing diversions into the Sacramento River.

Furthermore, for the Board to honor its stated commitments, the document would need to no longer read as an exercise in evading accountability for current conditions. It would not blame drought emergencies, climate change, and the water rights system for decimated aquatic species populations and regulatory delays. Instead, it would acknowledge the Board's own acquiescence to much of what has brought decline, from approving Temporary Urgency Change Petitions to staff redirection to implementation delays in the name of voluntary agreements. In changing course, the Board must also identify what it can do within the full scope of its authority to restore these ecosystems and repair legacies of injustice. This document will otherwise stand, not only as legally insufficient, but also an exercise in avoidance and cowardice. Californians deserve better.

CEQA Policy and Legislative Intent

CEQA, its legislative intent language, and a large body of case law have established clear parameters for what constitutes an adequate environmental impact review. Lead agencies must seek to avoid harm, mitigate impacts when feasible, and "consider a reasonable range of potentially feasible alternatives that will foster informed decision

making and public participation.”¹ The “foremost principle” of CEQA is that “the Legislature intended the act ‘to be interpreted in such manner as to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.’”² Decision-makers and the public cannot be deprived of “material necessary to informed decision-making and informed public participation.”³

Rather than allowing agency environmental review to stack the deck in one direction, CEQA requires an “interactive process of assessment of environmental impacts and responsive modification” designed to protect the environment.⁴ An “artificially narrow” approach to project purposes and objectives lies outside the agency’s discretion, because utilizing it would transform the assessment CEQA requires into an “empty formality.”⁵ The project description must be “accurate, stable, and finite.”⁶ Assessment of the project’s direct, indirect, and cumulative impacts must “set forth sufficient information to foster informed public participation and reasoned decision making.”⁷ “Nonspecific and general” responses to comment may be deemed inadequate.⁸

The SED’s stated attempt to fulfill CEQA requirements is undermined throughout the document in multiple ways. First and foremost, the inclusion of the Voluntary Agreements (VAs) as a feasible alternative cannot be reconciled with CEQA’s basic tenets. The purpose of the SED is to evaluate the impacts of a regulatory program – the Bay-Delta Water Quality Control Plan. A regulatory program, by definition, comprises regulations. The VAs are not a regulatory program. Rather, they are agreements between water management agencies that would otherwise be subject to regulation to meet legal duties (e.g., mandatory and enforceable rules). Conflating VAs with regulatory requirements creates an unstable project description, contrary to CEQA.⁹

Furthermore, the VAs by design would not achieve the goals for ecosystem recovery that the Board has defined in the SED. Rather, they would attempt to achieve more limited environmental objectives (SED 9-1 to 9-5). Those objectives are demonstrably insufficient according to the Board’s scientific basis report. Thus, the VAs are neither a reasonable nor feasible alternative, and should not have been included in the SED.

¹ 14 Cal. Code Regs, § 15126.6; see also Public Resources Code, Sections 21000-21006.

² *Sierra Club v. County of Fresno* (2018) 6 Ca.5th 502, 511 [quoting *Laurel Heights Improvement Assn. v. Regents* (1988) 47 Cal.3d 376, 405].

³ *Id.* at 520.

⁴ *County of Inyo v. City of Los Angeles* (VI)(1984) 160 Cal.App.3d 1178, 1183..

⁵ *We Advocate Thorough Environmental Review v. County of Siskiyou* (2022) 78 Cal.App.5th 68, 693.

⁶ *Washoe Meadows Community v. Department of Parks & Recreation* (2017) 17 Cal.App.5th 277, 286-288.

⁷ *City of Long Beach v. City of Los Angeles* (2018) 19 Cal.App. 5th 465, 488.

⁸ *Cleary v. County of Stanislaus* (1981) 118 Cal.App.3d 348, 358.

⁹ “[A] stable description permits in the environmental review process. Without that, the purposes of CEQA are nullified and the statute is violated.” *Southwest Regional Council of Carpenters v. City of Los Angeles* (2022) 76 Cal.App.5th 1154, 1174.

Another clear CEQA violation stems from deficient and missing analysis. The SED does not contain a public trust analysis, contrary to the well-established doctrine that “[t]he state has an affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible.”¹⁰ One core component of a public trust analysis is assessing feasibility via an evaluation of benefits and costs. The SED cannot perform this function because of its meager attempt to analyze benefits of more restorative flow scenarios (65 and 75 percent unimpaired flow and modular alternatives) and its refusal to grapple with other aspects of the regulatory program, such as temperature standards, restrictions on water rights permits, fish passage requirements, and habitat management and restoration needs (as described in detail below). The SED is also missing climate change analysis despite multiple acknowledgments of climate change impacts to hydrology and a Board Resolution¹¹ which directs climate change analysis for Board decisions. These omissions are evidence of the need for the Board to start over and fully comply with the law in the next iteration.

A further inexcusable omission is the exclusion of the Trinity River from the SED analysis. As the SED acknowledges, the Trinity River provides a substantial amount of water into the Sacramento River on an annual basis (SED 2-20). While the Board may seek to define those diversions as baseline conditions, it is not absolved from evaluating impacts to the Trinity from different regulatory program alternatives. The omission is particularly egregious because the Trinity River ecosystem is integral to the culture and survival of tribes and the Board has committed to repairing relations with tribes in its work.

Finally, the SED lacks clear and meaningful goals. The SED’s broad narrative objectives (7.1-5, 7.1-6) are important, but they are insufficient for a regulatory program that involves allocation of a scarce resource. What are the numeric objectives for species survival under different hydrologic conditions? (This is critical because as the SED notes, there is fish mortality in the driest years even without impaired flows). What are the goals for minimizing harms and restoring dignity to tribes and environmental justice communities? What is a reasonable amount of disruption to agricultural operations? Without clear and measurable goals, the Board cannot adequately do the feasibility and balancing analyses that are required under the public trust. Moreover, it cannot evaluate the efficacy and equity of the regulatory program it ultimately adopts.

These deficiencies are CEQA violations if left uncorrected, but they also present a pattern of ongoing biases and discriminatory practices. What value are the Board’s commitments to tribal engagement, racial equity, and climate resilience when the environmental review for a major program pays them little more than lip service? As

¹⁰ *National Audubon Society v. Superior Court* (1983 33 Cal.3d 420, 446).

¹¹ State Water Board, Resolution 2017-0012 (2017).

discussed below, the SED's framing of recent history provides yet another example for why people are cynical and contemptuous of government.

Narrative Bias

While every document conforms to its authors' biases, honest authors enunciate their biases and attempt to provide an even-handed assessment of information. The SED does neither. Rather, it makes unsupported claims and mischaracterizations. The most egregious of these are the following:

- The claim that fixed flow requirements would not allow for adaptive management (SED 7.2-16)
- The claim that more protective unimpaired flow requirements are infeasible due to cold water storage limitations (SED 5-16)
- The assertion that the Board's actions (and inaction) did not contribute to the current state of ecosystem degradation (SED 2-120, 2-121)
- The characterization that voluntary implementation pathways could achieve the environmental objectives (SED 5-9 to 5-13)

The Board's scientific basis report (Scientific Report) documents that aquatic species require certain baseline conditions for survival (Scientific Report, 1-20). When those conditions, specifically flow and temperature, are not met, mortality is high. Contemporary dry years with low flows and high temperatures have seen significant reductions in fish populations, forcing the closure of commercial fishing in 2023. Protective fixed flow requirements would ensure that there is always enough cold water flowing for species survival, especially in critically dry years. Furthermore, fixed flow requirements for dry years do not preclude adaptive management in wet years. For example, the plan could allow for surface water diversions for groundwater recharge (by Groundwater Sustainability Agencies meeting certain criteria (i.e., protections for domestic supplies) during wet years.

Moreover, the Board's history with adaptive management has often been maladaptive. During dry years, the Board has granted requests for Temporary Urgency Change Petitions (TUCPs) to waive the existing insufficient water quality rules (SED 2-120, 2-121). If the Board adopts insufficient protective standards in the current plan update, TUCPs will continue to be a feature of dry year management. The purpose of adaptive management is not to react to (foreseeable) dry conditions by waiving environmental standards. Rather, it is to allow for adjustments from a defined set of rules to meet key objectives. For the Bay-Delta plan, those objectives should include preventing massive fish mortality in dry years. Thus, there is no reasonable basis for the Board's rejection of fixed flow scenarios.

Regarding the "high" flow scenarios (65/75% unimpaired flow), the SED claims that they would significantly impact cold water storage reserves and are therefore infeasible (SED 5-16). However, the SED's projections of end-of-water-year storage in dry years (and on

average) shows that not all reservoirs would face significant depletions in cold water storage. In fact, the state's largest reservoir, Shasta, would increase its cold water storage, while Oroville, its second largest, would see reductions of less than 10% even in critically dry years (SED 6-49).¹² Moreover, the SED presents no evidence that reservoir operators would be unable to manage storage and releases safely under the 65 and 75 percent unimpaired flow scenarios. Furthermore, since the SED does not contain numeric temperature objectives, there is no verifiable assessment of whether the more protective flow scenarios would allow for sufficiently cold water temperatures throughout the watershed.

The SED does present evidence, however, that under the more protective flow scenarios fish survival would increase (e.g., Table 3.14-4). Thus, readers are left to speculate about what criteria the Board used to determine certain levels of water supply reductions are unreasonable. Regardless, there is no weighing of benefits and costs to different species and stakeholders. The SED should contain a clear rationale for the proposed plan amendments. Moreover, the evaluation of alternatives should include meaningful feasibility assessment. The SED's deficiencies in supporting its policy recommendation illustrate bias masquerading as analysis.

Likewise, in its characterization of the factors responsible for the current state of ecosystem decline, the SED is manifestly biased. While the document acknowledges actions the Board took, including granting TUCPs and delaying Bay-Delta Plan regulatory development for drought response and VA negotiations, it does not describe the consequences of those decisions. Fish populations in the Delta watershed declined precipitously during the 2011-2016 drought period when the Board was busy waiving environmental standards and focusing its attention on urban conservation and smaller river systems (i.e., the Russian River). Beginning in 2019, when the Board could have been implementing its Phase I decision and assembling the Phase II staff proposal, it instead placed a hold on Phase I implementation and Phase II development to allow the VA parties to negotiate (SED 9-3). Meanwhile, the federal government (under the most environmentally hostile leadership since the Reagan administration) released biological opinions allowing for more water diversions, while the state's Department of Fish and Wildlife released a status quo Incidental Take Permit (ITP) permitting ongoing massive fish kills in the Delta. As drought conditions returned in 2020, fish populations declined again.

Actions have consequences. In the historical context, the Board seems to understand this, which is why its resolutions and policies describe harms inflicted on BIPOC communities.¹³ The SED includes language on the harms to tribes perpetrated by white settlers (11-1 to 11-3). However, in its characterization of more recent Board actions, the SED lacks the same commitment to candor.

¹² As shown in Table 6.3-11, the Sacramento River reservoirs, which have the greatest total storage due to Lake Shasta, would have more cold water reserves in critically dry years.

¹³ State Water Board Resolution 2021-0050.

“CEQA compels process. It is a meticulous process designed to ensure that the environment is protected.”¹⁴ These mischaracterizations are a CEQA deficiency because they obscure the identification and thwart the assessment of potentially feasible mitigation measures and implicate other legal duties. Instead of delaying or deferring action of its own, it could avoid reliance on TUCPs under its duty to account for their tangible impacts on public trust resources, and to protect those resources whenever feasible. It also implicates the Board’s duties beyond complying with law at its bare minimum. A government body that is not able to accurately and honestly evaluate the impacts of its actions is not capable of taking actions to repair those harms.

The absence of meaningful and objective assessment extends to the Board’s legal responsibilities to craft a regulatory plan. Not only are the VAs considered as a feasible alternative, but the SED includes copious language about the potential for voluntary measures to meet the SED’s objectives (SED 5-18 to 5-20). However, voluntary actions do not constitute a project under CEQA; nor can they fulfill the Board’s public trust responsibilities. The Board also claims erroneously that certain measures, such as habitat restoration, are outside the scope of its regulatory purview. Nevertheless, the Board’s legal authorities are well established in statute and case law. As described in detail below, the implementation plan is a series of descriptions about potential (discretionary) actions, including updating numeric temperature standards, fish passage, drought response measures, and declarations of full appropriation, which the Board uses to narrow the scope of its environmental analysis. This is piecemealing the program, which is a foundational CEQA violation.¹⁵

Specific Deficiencies by Chapter

Hydrology and Water Supply (Chapter 2)

The SED responsibly documents the vast gap between water rights claims and total water availability (SED 2-115 to 2-122). It also describes the potential for additional water demand due to population growth and pending water rights applications. However, instead of identifying and evaluating mitigation measures, such as a declaration of full appropriation (see Chapter 5 below) and a proactive plan to reduce water rights, the SED simply moves on.

Additionally, the SED fails to elucidate a source of tension between water rights and environmental protection law. The over allocation and inequitable distribution of water rights are impediments to ecosystem restoration. To remove those impediments, either the Board or the courts, or both, must take action to restrict and potentially reallocate damaging water uses by enforcing environmental protection law.

¹⁴ *Planning and Conservation League v. Department of Water Resources* (2000) 89 Cal.App.4th 892, 911.

¹⁵ *Berkeley Keep Jets Over The Bay Com. v. Board of Port Comr’s* (2001) 91 Cal.App.4th 1344, 1358.

Moreover, because the SED does not contain a climate change analysis, there is no discussion of how existing and pending water rights affect the Board's ability to manage in increasingly extreme hydrology. Furthermore, because the regulatory language has not yet been written, there is no way to know how the Board would treat water rights claims under different in-stream flow scenarios.

For a CEQA analysis to be useful, it must evaluate reasonably foreseeable future conditions. The failure to conduct this evaluation in Chapter Two has cascading effects throughout the rest of the SED. The Board must cure this deficiency by integrating water rights management (e.g., verification, restriction, enforcement) into its plan of implementation and impacts analysis. As the Board has stated publicly, it intends to seek verification of dubious water rights claims.¹⁶ To avoid piecemealing the regulatory program, it must include these actions in the SED.

Exclusion of the Trinity River

The SED must analyze impacts associated with diversion from the Trinity River. It is an integral part of the Board's public trust obligations along with its written commitment to tribal equity. Current conditions on the Trinity and Klamath rivers are dire for salmon populations, jeopardizing the livelihoods of the Yurok, Karuk, and Hoopa Valley tribes¹⁷ and benefits associated with the Klamath dam removals. Moreover, the temperature standard in Water Rights Order 90-5 does not provide adequate protection for salmon survival. (See Figure 1 below). Trinity River Coho salmon, a federal and state threatened species, suffered nearly 75% egg mortality at Trinity River Hatchery in 2021 due to warm water because of low Trinity Lake storage. (See Figure 1 below).¹⁸

There is currently no plan or priority by either the North Coast Regional Water Board or the Central Valley Regional Board to update basin plan temperature objectives, nor does the SED provide any indication that it will use the Bay-Delta Plan update to revise WRO 90-5 to adequately protect Sacramento and Trinity salmon species and runs, listed or otherwise. This lack of action is especially concerning given the Board's acknowledgement that, "Order 90-5 did not address the needs of the Trinity River directly."¹⁹

Additionally, Appendix G3 to the SED, (pages 176-177 and 180-181) shows negative impacts to Trinity and Shasta cold water storage from the VAs. It is a near certainty that

¹⁶ See <https://www.nytimes.com/interactive/2023/12/14/climate/california-water-crisis-drought.html>, accessed December 15, 2023.

¹⁷ See <https://www.siskiyoudaily.com/story/news/2021/07/14/salmon-trucked-iron-gate-until-conditions-improve-klamath-river/7963967002/>, accessed January 17, 2024.

¹⁸ This graph and other analysis were provided to the State Water Board in an April 27, 2022, email from Justin Ly, National Oceanic and Atmospheric Administration, to Eileen Sobek, Executive Director, State Water Board. (See attachment 2).

¹⁹ October 23, 2023, letter from Eileen Sobek, Executive Director, State Water Board, to Michael Palmer, titled "RESPONSE TO CONCERNS REGARDING TRINITY RIVER WATER TEMPERATURE ISSUES." (See attachment 1).

additional demands on cold water storage from Trinity and Shasta reservoirs will result in additional downstream salmon egg mortality, especially given the inadequate temperature requirements and protections found in WRO 90-5 and the two Regional Board Basin Plans.

The SED must cure these deficiencies by including impacts to the Trinity River in its analysis and including protective temperature standards in its plan of implementation.

Figure 1: Coho salmon egg survival and Trinity River Hatchery water temperature

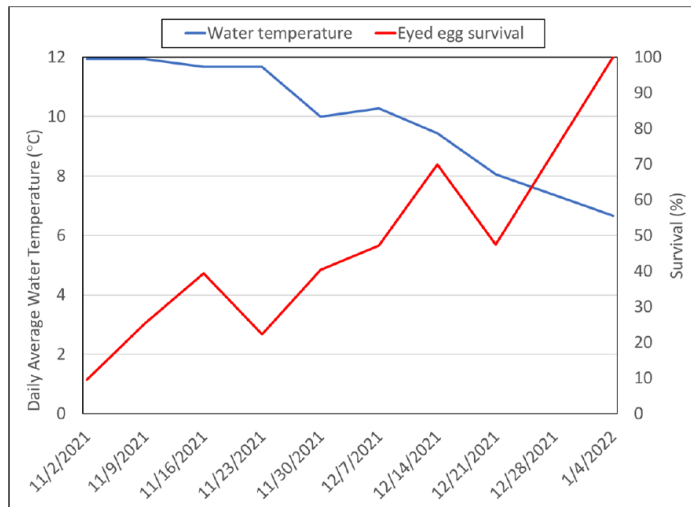


Figure 1. Coho salmon egg survival and Trinity River Hatchery water temperatures, 2021 (Clifford 2022)

Proposed Plan Changes (Chapter 5)

The Bay-Delta Plan is a watershed-wide regulatory program to balance ecosystem function against consumptive uses (e.g., agriculture and drinking water supplies). The need for a full analysis, as required by both CEQA and public trust case law, stems from a comprehensive set of proposed regulatory actions.

The SED focuses on flow scenarios and future potential temperature control plans and lumps other program components into the discretionary category. This includes reservoir operations, fish passage, contaminant and predation controls, and habitat restoration. The SED asserts that the Board may consider certain elements, and states that some of the elements are beyond its regulatory authority.

Not only is this a piecemeal approach, but it also mischaracterizes the scope of the Board's authorities. For flows, the SED includes a staff proposal and defined alternative flow scenarios, which allows for analysis. By stating a desire for voluntary implementation actions and not including specific proposed regulatory standards for any other water quality component, the SED evades its legal responsibility to analyze environmental impacts, rendering the SED incomplete. The authority and responsibility

of the Board to include proposals and analysis for other water quality components is described below.

Temperature

The SED recognizes the importance of water temperature for aquatic species survival. Indeed, it references the potential lack of late summer cold water storage as a reason for selecting a lower unimpaired flow scenario. Nevertheless, the implementation plan does not include numeric temperature objectives and has no tangible regulatory proposals.²⁰ The SED states that the Board will delegate the approval of annual temperature management plans to staff (SED 5-24) and that the Board may review objectives set by the Central Valley Regional Water Quality Control Board (SED 5-20, 5-21).

A more defined approach to temperature management, especially as climate change increases air temperature and extreme heat days, could potentially increase ecosystem function. Moreover, it is technically possible to install and manage temperature control systems at reservoirs.²¹ Therefore, the main issues are environmental benefits and economic costs, which should be considered under both CEQA and the Board's public trust responsibilities. The SED contains one paragraph (SED 8-114) on the costs and benefits of a temperature control system but lacks any systemic analysis.

Fish Passage

The SED discusses how the dams that block access to habitat have harmed fish populations and references the statutory requirements for dam owners to provide for fish passage (SED 5-20, 5-22). But, instead of including specific regulatory proposals, the SED uses more conditional language about how the Board may use its authorities to require investments in fish passage (SED 5-42). As with temperature management, there are technical solutions for fish passage (e.g., trap and truck and construction of fish ladders). So again, where the SED should have analyzed benefits and costs of fish passage requirements it only includes brief summaries of fish passage projects in other watersheds (SED 8-113, 8-114).

Fully Appropriated Stream System Declaration

As noted in the discussion of Chapter Two above, the SED documents how the quantity of water contained in water rights permits far exceeds the actual amount of water in the system. However, there is no proposal to declare the entire watershed as fully appropriated. Any of the more protective flow standards (55/65/75% unimpaired flow)

²⁰ Section 5.4.3.3 contains a broad narrative objective.

²¹ See <https://docslib.org/doc/4911346/review-of-temperature-control-options-for-reservoir-release-flows>, accessed December 18, 2023.

would result in less water available to existing water rights holders in drier years. Granting any additional permits would frustrate achievement of the flow objectives unless additional usage restrictions were placed on existing water users. A comprehensive and thorough environmental review requires assessment of these tradeoffs.

Habitat restoration

The SED claims that the Board does not have the ability to require habitat restoration (SED 5-41, 5-42). While this may be true for private riparian landowners, it is not true for the state and federal government agencies and public and private utilities that own and operate reservoirs and water conveyance infrastructure. All those entities hold permits from the Board and those permits can include habitat restoration conditions. Indeed, those conditions are the types of mitigation measures that must be evaluated in a CEQA analysis. Moreover, habitat restoration can include in-stream measures (e.g., creation of egg-laying sites) that can be performed by either DWR or USBR, in consultation with tribes and fisheries management agencies. Thus, the lack of specific habitat improvement measures is yet another deficiency in the SED.

Drought and climate change response

Because fish mortality dramatically increases during drought periods, the SED must identify specific mitigation measures for droughts. Those measures must depart from past practice of waiving environmental standards through the approval of TUCPs. However, like the above topics, the SED only includes potential regulatory action instead of a clear proposal. Droughts are a feature of California's hydrology, and their severity and frequency are increasing with climate change. The Board cannot simply assume that an unimpaired flow standard of 45-65% by itself will be an adequate drought response measure during consecutive dry and critically dry years.

Furthermore, the basis for the proposed numeric objective (5.4.2.3) is inadequate on several counts. Most troublingly, it perpetuates the fallacy that it is permissible to trade-off flow for habitat by allowing for values as low as 45% unimpaired flows if certain voluntary agreements on habitat are met. However, this contradicts the scientific basis report, whose findings the SED acknowledges by stating, "Expected benefits to fish and wildlife are marginal in the 45 scenario ..." (SED 5-16). Thus, the idea that flow values between 45 and 55 percent unimpaired could be beneficial under any hydrologic conditions lacks merit.

The lack of climate change analysis compounds these inadequacies. Section 5.6.2.3 has two paragraphs about climate change and focuses on minimum domestic water supply needs. The second paragraph mentions timeline and offramps, with no discussion regarding the conditions under which they might be granted, and to whom (SED 5-68). The Board has authority to ensure that minimum domestic supply needs

are met and has set health and safety requirements in prior drought emergency regulations (e.g., on the Russian River).²² Therefore, the Board has no reasonable basis to not include a well-defined set of drought response actions within the Bay-Delta plan.

In summary, Chapter Five demonstrates that a comprehensive water quality control plan is not under consideration. The SED's proposal is analogous to an air quality control plan that only considers vehicle emissions. Given the scientific and legal information at its disposal, the Board has no excuse for this inadequate proposal. The Board must update and recirculate the SED to fulfill its legal obligations.

Changes in Hydrology and Water Supply (Chapter 6)

Although the SED describes many of the current factors that affect water supplies for human uses, it has significant omissions. When describing the effects of recent decisions from fisheries agencies (Biological Opinions and Incidental Take Permits), the SED notes that "Updates to the Biological Opinions (BiOps) and issuance of an Incidental Take Permit (ITP) have changed the requirements for operation of the SWP and CVP, though under most circumstances actual operations have not significantly changed." (SED 6-4) What it does not acknowledge is that the 2019 BiOps weakened the existing environmental protections²³ and the 2020 ITP then used those federal opinions to justify additional fish mortality under state law. This omission matters because it diminishes transparency around which mitigation measures are feasible and effective. Specifically, it demonstrates that reliance upon fisheries agencies to establish protective standards is not a feasible mitigation measure. Also, it illustrates why the Board's preference for voluntary solutions is misguided. Without stronger regulatory requirements, voluntary measures based on existing standards will continue environmentally destructive levels of water diversions.

Another significant omission is the modelling of climate change impacts to hydrology. The SED states that modelling results will not be available until 2024 (SED 6-8, 6-9). The release of the SED without climate change analysis is not only a CEQA violation, it also directly contradicts the Board's own climate change resolution, which calls for climate analysis to inform the Board's decision making. Serious environmental analysis requires grappling with extreme scenarios, such as severe and extended droughts. Including those scenarios helps with risk management actions and disaster preparedness. The state has managed this for other climate impacts, such as extreme heat and sea level rise.²⁴ It is equally if not more imperative for hydrologic modelling.

²² See https://www.waterboards.ca.gov/drought/russian_river/docs/rr_reg_approval_oal.pdf, accessed December 18, 2023.

²³ See <https://www.nrdc.org/bio/doug-obegi/trumps-bay-delta-biops-are-plan-extinction>, accessed December 18, 2023.

²⁴ See, for example https://opc.ca.gov/webmaster/_media_library/2023/07/SLR-Task-Force-Process-FAQ-508.pdf, accessed December 18, 2023.

A further critical omission is the lack of discussion about proactive agricultural water conservation actions. Section 6.6 discusses various ways to augment supplies, along with urban conservation and water transfers, but there is no detailed discussion of permanent land retirement and conversion efforts. The need for permanent reductions in irrigated acreage is well documented, even by institutes with strong financial ties to agribusiness.²⁵ Moreover, the SED excludes existing agricultural land conversion programs, such as the state's multi-benefit land repurposing program run by the Department of Conservation²⁶, along with the impacts of state renewable energy policies that are driving investment in solar and wind projects in the Central Valley.²⁷ These omissions are significant because who bears the costs on both the supply and demand side of responding to reduced water availability matters. Just because the Governor's water strategy is tilted towards supply augmentation does not allow the Board to skip evaluation of reasonably foreseeable demand side management. The SED cannot exclude feasible alternatives from its analysis.

Environmental Analysis (Chapter 7)

The environmental analysis chapter includes a discussion of how the SED is compliant with CEQA (Section 7.1) and description and analysis of alternatives (Sections 7.2 and 7.24). Although the SED claims compliance with CEQA regarding alternatives selection, a close read of CEQA's requirements shows it is false. CEQA mandates the identification of and focus on *feasible* (emphasis added) mitigation measures and alternatives.²⁸ Nevertheless, the Board has included alternatives that are demonstrably infeasible given the Board's declaration that the plan update (the "project" per CEQA) is "intended to be a restoration action." (SED 7.1-25).

First and foremost, the VAs are infeasible because they are not a regulatory program, subvert public trust protection requirements, and violate racial equity commitments. Excluding the VAs to focus on feasible alternatives was and is within the Board's discretion. Second, the SED's "low flow" scenarios (35 & 45% unimpaired flow) are infeasible because they would not accomplish the ecosystem restoration goals. As the SED and Scientific Report document, benefits to fish under those scenarios would be "marginal" at best. Thus, the Board had no justifiable reason to include and analyze them.

Furthermore, alternatives that offer additional restoration benefits, such as the Extended Export Constraint (Alternative 4c) and Modular Drought Alternatives (Alternatives 5a

²⁵ See, for example <https://www.ppic.org/publication/water-use-in-californias-agriculture/>, accessed December 18, 2023.

²⁶ See <https://www.conservation.ca.gov/dlrp/grant-programs/Pages/Multibenefit-Land-Repurposing-Program.aspx>, accessed December 18, 2023.

²⁷ See <https://www.latimes.com/environment/newsletter/2021-07-08/solar-panels-on-farmland-california-water-power-crises-boiling-point>, accessed December 18, 2023.

²⁸ Public Resources Code, Sections 21002 and 21003(c).

and 5b) were not emphasized as CEQA directs. They were not analyzed in the economics chapter and do not include any quantitative assessment of benefits and impacts. Instead, for Alternative 4c, SED uses qualitative language to conclude that “the water supply impacts of this alternative would be very significant and may not be considered reasonable ...” (SED 7.24-46). The Board offers no context or criteria for what constitutes “reasonable” nor any assessment of whether the water supply impacts could be mitigated. Unfortunately, these unsupported conclusions are pervasive throughout the SED and used to dismiss the possibility of more protective standards.

To fulfill its legal obligations, the Board must do two things: 1) focus its analysis on feasible alternatives; and 2) conduct a detailed and reasoned analysis of the benefits and costs of those alternatives. This includes transparency about what level of reductions to agricultural water supply the Board considers to be reasonable.

Economics (Chapter 8)

The SED’s approach to economic analysis is one-sided and incomplete; and it contravenes the Board’s public trust evaluation and racial equity obligations. Additionally, it utilizes outdated data and omits contemporary approaches to environmental economics. Along with consideration of the VAs, it presents the starkest evidence of the Board’s hypocrisy – claiming to care about racial equity and environmental protection while completely dismissing them in a foundational analysis and regulatory program.

The Introduction to Chapter 8, which describes the economic analysis undertaken, contains no references to the Board’s racial and climate equity commitments. However, the Board’s climate change resolution states that the Board will consider environmental justice and tribal impacts and when developing and enforcing instream flow requirements, while the racial equity action plan directs staff to “Identify and implement actions to address climate change impacts, related to State Board authorities, found likely to have disproportionate impacts on BIPOC communities or interests.”²⁹ Chapter 8 has no analysis responsive to either of these directives.

Instead, most of the chapter analyses potential impacts to agricultural revenues. Those estimates are based on 2010 data, which the SED acknowledges does not account for increases in tree nut production but does not adjust to reflect that reality (SED 8-41). Moreover, the chapter references outdated urban water use data from DWR and makes no reference to the Board’s current data collection and regulatory processes to achieve additional urban water conservation (SED 8-7). (Notably, these efforts are documented in other places within the SED). The chapter also omits economic analysis for various scenarios. It does not include any of the modified scenarios presented in Chapters 5 and 7 and lumps dry and critically dry years together (SED 8-43). These deficiencies

²⁹ State Water Board, Racial Equity Action Plan, January 2023.

result in an incomplete assessment of potential impacts to the agricultural and urban water sectors.

The biggest deficiency, however, is that lack of analysis for potential benefits. The SED makes no attempt to develop comprehensive quantitative benefits estimates, nor does it apply a racial equity lens to the benefits and costs analyses. The Board has ample evidence to draw upon for a benefits evaluation. It could have utilized well established techniques to quantify existence values and ecosystem services. It could have presented scenarios for the economic benefits from commercial fisheries, recreation, and tourism resulting from a comprehensive plan of implementation. It could have conducted analyses of specific fish passage and temperature control measures. It could have used its tribal consultations to document benefits to tribes. It could have taken an environmental justice lens to estimate benefits to communities in the Delta. It could have analyzed the avoided costs of eliminating or reducing reactive emergency drought response measures. However, the Board did none of those things, and instead presented a series of descriptions and examples with no geographic specificity (except one willingness to pay study) that prevent readers from evaluating the benefits that could accrue from the proposed flow scenarios and other water quality control measures (Section 8.6). Therefore, the SED fails on multiple dimensions. Moreover, this chapter is an affront to tribes and communities who have been and continue to be harmed by excess water diversions, minimizing their suffering. Unless the Board reverses course, the racial equity and climate resolutions are just meaningless words.

Voluntary Agreements (Chapter 9)

Imagine an alternate reality. In this reality, tribes, commercial fishing groups, and environmental and social justice advocates sat in rooms with government officials and worked out some agreements for an 8-year plan. This plan included a 75% unimpaired flow requirement, along with specific temperature management, fish passage, and habitat restoration mandates. It also required that the Board could not consider permits for the proposed Delta Conveyance Project and Sites Reservoir until after the 8 years were up. And imagine that the Board included this plan as a separate chapter in the SED. Now, imagine how the water and irrigation districts, who were deliberately excluded from the negotiations, might react.

Political leaders always have a choice. They can support the status quo, or they can contribute to bending the moral arc of the universe towards justice. The Newsom administration is all-in for the status quo and history will not look kindly upon their actions.

Regulatory agencies, on the other hand, have areas of discretion but do not have a choice in the same sense. To fulfill their duties and their mission, they must follow the laws that define their mandate and authority. For all the reasons enumerated by the parties that were excluded from the VAs, the Board must reject them. If the Board

approves the VAs, they will elicit successful challenges, and be remanded to complete the plan update without them. The Board should avoid this massive waste of time and resources by approving a plan that complies with the law at the outset. Furthermore, if the Board Members care at all about their legacy, they should do the right thing.

Conclusion

Finally, regarding legacy, the Board should be aware of the court cases being filed on behalf of children whose futures are being imperiled by inadequate climate action. Another case was recently filed in California.³⁰ The plaintiffs are young people whose lives are already being turned upside down by climate change impacts. They are seeking relief from the courts because the regulatory agencies have failed to fulfill their duties. The Board has a powerful opportunity to reverse course and protect the next generation of BIPOC children who are already impacted disproportionately by climate change impacts. These young people do not need a guaranteed export market for nuts and rice and chronically failing watersheds; what they need is a healthy environment and a just transition to a California that truly works for all.

Sit with that. Think about your own children and families. And then decide whose interests you are there to protect.

Respectfully,

Max Gomberg

Max Gomberg, Senior Policy Consultant

Carolee Krieger

Carolee Krieger, Executive Director

Encl. Two Attachments

³⁰ See <https://www.theguardian.com/us-news/2023/dec/11/california-youth-sue-epa-climate-crisis>, accessed December 18, 2023.



State Water Resources Control Board

October 23, 2023

RESPONSE TO CONCERNS REGARDING TRINITY RIVER WATER TEMPERATURE ISSUES

Dear Mr. Palmer:

Thank you for your letter expressing concerns regarding Trinity River temperature issues. State Water Board staff have reviewed the information you provided and would like to share more background on Water Rights Order 90-5 (Order 90-5) and respond specifically to your analysis of past violations.

[The Trinity River and Order 90-5](#)

Order 90-5 imposes certain requirements on the U.S. Bureau of Reclamation (Reclamation) in order to protect the fishery in the Sacramento River below Shasta Reservoir, without causing incidental adverse impacts to the fishery in the Trinity River. Order 90-5 partially implements water quality objectives established by the Water Quality Control Plan for the Sacramento River and San Joaquin River Basins. To protect the fishery on the mainstem Sacramento River, Order 90-5 established a temperature target of 56 degrees Fahrenheit (F) at Red Bluff Diversion Dam.

On the Trinity River, Order 90-5 includes a “do no harm” condition to ensure that Central Valley Project (CVP) operations for the benefit of temperature management on the Sacramento River do not impact temperature management on the Trinity River. Order 90-5 establishes temperature thresholds on the Trinity River as a metric to determine if adverse effects to the Trinity River fishery occur when Reclamation operates the Trinity River Division for the purposes of temperature management on the Sacramento River. The “do no harm” condition does not apply to all water diverted from the Trinity River, including water diverted for water supply in the Central Valley.

Specifically, adverse effects to the Trinity River fishery are deemed to occur when daily average temperatures exceed 56 degrees F at the Douglas City Bridge between September 15 and October 1, or at the confluence of the North Fork Trinity River between October 1 and December 31 “due to factors which are (a) controllable by [Reclamation] and (b) are a result of modification of Trinity River operations for temperature control on the Sacramento River.” (Order 90-5, pp. 61-62.) These

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temperature thresholds are a subset of the temperature objectives identified in the Basin Plan for the North Coast Region, and do not include the 60 degrees F objective at Douglas City from July 1 through September 14. See the map below for locations of Douglas City (DGC) and Helena (NFH).

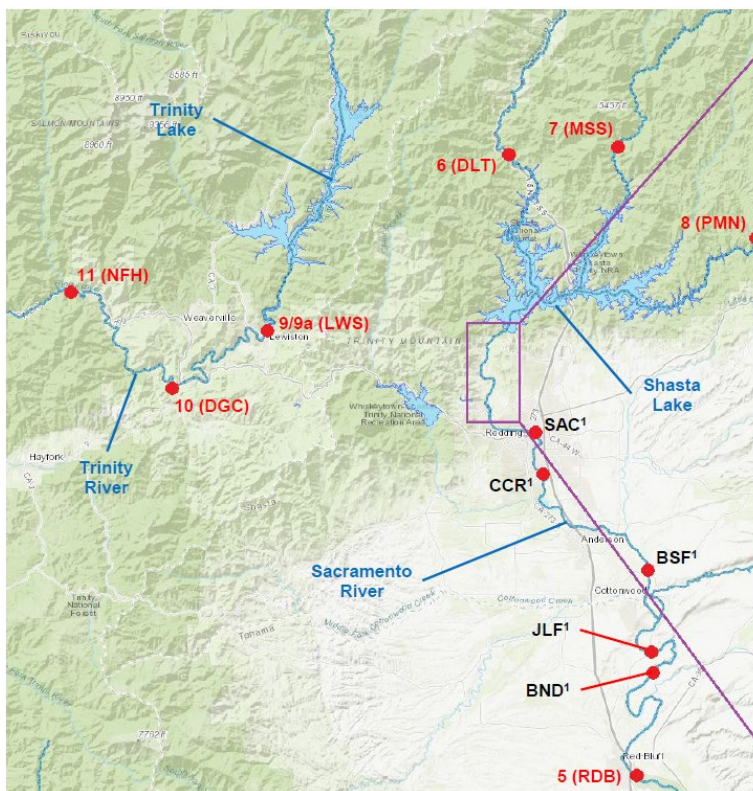


Figure 1. Map of the Shasta Trinity Complex of the CVP.

Generally, Trinity River diversions during the temperature management season do not provide temperature benefits on the Sacramento River because imported water is warmer than Shasta releases. Accordingly, imports during that period are not considered to be for the purpose of temperature management on the Sacramento River.

The primary purpose of water exported from the Trinity River is to provide water supplies for Central Valley Project (CVP) contractors in the Central Valley. As stated above, compliance with the Trinity River temperature thresholds established by Order 90-5 depends on whether Reclamation changes Trinity River Division operations in order to improve temperature management on the Sacramento River. Thus, while Trinity River exports for water supplies may negatively impact temperatures on the Trinity River, they do not constitute a violation of Order 90-5.

Past Temperature Exceedances

Regarding the analysis you submitted identifying what you believe are past violations, Order 90-5 does require Reclamation to submit a report following any exceedances of

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the temperature thresholds for the Trinity River. After a review of CDEC temperature data since 2018 for the Trinity River at Douglas City (Sep 15 - Oct 1) and 2010 for Helena above the North Fork Trinity confluence (Oct 1 – Dec 31), we identified exceedances of 56 degrees F in 8 out of 12 years at Helena (Table 1). Of those 8 years, 4 years had 3 or fewer days of exceedances. Since 2018, no exceedances have been reported at the Douglas City location between September 15 and October 1. Temperature data at Douglas City was not available before 2018.

Table 1. Temperature Exceedances on the Trinity River from 2010 to 2021. Data gaps present in 2019 (3 days) and 2021 (7 days) at Douglas City.

Year	% Temp Threshold Met at Douglas City	Douglas City Days Threshold Not Met	% Temp Threshold Met at North Fork Trinity	North Fork Days Threshold Not Met
2010	-	-	92%	7
2011	-	-	100%	0
2012	-	-	99%	1
2013	-	-	100%	0
2014	-	-	84%	15
2015	-	-	80%	18
2016	-	-	97%	3
2017	-	-	100%	0
2018	100.00%	0	98%	2
2019	100.00%	0	100%	0
2020	100.00%	0	99%	1
2021	100.00%	0	92%	7

Historically, Reclamation has not consistently reported these exceedances or their reasons.

In 2022, it was evident that temperatures on the Trinity River would again exceed the temperature thresholds of Order 90-5. In September of 2022, the Division of Water Rights coordinated with Reclamation to ensure that Reclamation submitted a report explaining the reason for the exceedances. Accordingly, Reclamation included a justification in the monthly temperature reporting required by Order 90-5 (September and October reporting); Reclamation explained that Trinity River exports were at a record low in 2022, and asserted that Trinity operations were not modified to support temperature management on the Sacramento.

State Water Board staff considered other factors when reviewing Reclamation's justification. In the 2022 Temperature Management Plan, Reclamation identified that increased releases from Trinity Dam and exports to the Sacramento are used to manage water temperatures on the Trinity River. Another factor is that water exported

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from the Trinity River in summer/fall months typically exceeds the temperature target contained in the Sacramento River Temperature Management Plan (TMP), and thus is not a direct benefit to temperature management on the Sacramento River.

Based on the information described above, the State Water Board staff determined that the minimum exports from the Trinity River in 2022 were not made for the purposes of temperature control on the Sacramento River. Accordingly, staff found that the exceedances of temperature thresholds on the Trinity River in 2022 did not violate Order 90-5.

Similarly, State Water Board staff are not aware of any evidence that the exceedances of the temperature threshold during the 2010-2021 time period were a result of modification of Trinity River operations for temperature control on the Sacramento River. Presumably, Trinity River exports during that period were primarily if not exclusively for purposes of meeting demands for water supplies, not for Sacramento River temperature management. Accordingly, Order 90-5 temperature requirements do not appear to have been violated, even though augmenting water supplies outside the temperature management season may have resulted in incidental temperature benefits by improving storage conditions in Shasta Reservoir. By copy of this letter, however, Reclamation is advised that Order 90-5 prohibits changes to Trinity River operations in order to control temperatures on the Sacramento River if those changes would cause exceedances of the temperature thresholds on the Trinity River.

[State Water Board Response](#)

The State Water Board will continue to coordinate with Reclamation to ensure compliance with Order 90-5, including the requirement to report any exceedances of the temperature thresholds on the Trinity River. Order 90-5 requires Reclamation to “immediately file with the Chief of the Division of Water Rights a report containing project operational data sufficient to demonstrate that the exceedance was not due to modifications of Trinity River operations for water temperature control on the Sacramento River.” By copy of this letter, Reclamation is advised that, depending on when an exceedance occurs in a given month, this condition may require Reclamation to submit this report well before and separate from its regular monitoring report that is otherwise due by the 15th day of the following month.

The State Water Board acknowledges the ongoing temperature management concerns on the Trinity River. As described above, Order 90-5 was designed to establish temperature requirements on the Sacramento River and to ensure that operations to meet those temperature requirements did not impact the Trinity River. Order 90-5 did not address the needs of the Trinity River fishery directly.

The Board has received high interest in re-evaluating Order 90-5 in the context of both the Trinity River and the Sacramento River during public meetings. Updating Order 90-5

[E. JOAQUIN ESQUIVEL, CHAIR](#) | [EILEEN SOBECK, EXECUTIVE DIRECTOR](#)

to include specific temperature requirements to ensure reasonable protection of the fishery on the Trinity River is a potential future action that the Board may take. Alternatively, it may be appropriate to develop a new water right order specific to the Trinity River that establishes new temperature requirements. In addition, Reclamation's ongoing reconsultation with the National Marine Fisheries Service regarding operations of the Trinity portion of the CVP under section 7 of the Endangered Species Act (ESA) may address the impacts of Trinity River imports during dry and critically dry water years and establish more protective temperature requirements for ESA listed Coho Salmon on the Trinity River. Reclamation has identified milestones for components of the reconsultation, including the Qualitative Draft Biological Assessment that was released to cooperating agencies and interested parties in July 2023 and the pending releases of the Cooperating Agency Draft Environmental Impact Statement in fall of 2023, the Public Draft EIS and Biological Assessment in late 2023, and the Record of Decision in 2024. The Board will re-evaluate the regulatory landscape following the ESA reconsultation and the need to update Order 90-5 or otherwise establish temperature protections specific for the Trinity River.

If you have further questions regarding this matter, please contact Craig Williams at craig.williams@waterboards.ca.gov, or Matt Holland at matthew.holland@waterboards.ca.gov.

Sincerely,



Eileen Sobeck, Executive Director
State Water Resources Control Board

cc: Levi Johnson, lejohnson@usbr.gov
Thomas Patton, tpatton@usbr.gov
Elizabeth Kiteck, EKiteck@usbr.gov
Congressman Jared Huffman, CA02JHima@mail.house.gov
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Tom Stokely, TGStoked@gmail.com
Trent Tuthill, ttuthill@trinitycounty.org
Liam Gogan, LGogan@trinitycounty.org
Cory Inouye, Cory.Inouye@mac.com

CWIN ATTACHMENT 2

----- Forwarded message -----

From: **Justin Ly - NOAA Federal** <justin.ly@noaa.gov>

Date: Wed, Apr 27, 2022 at 12:14 PM

Subject: Comments on Reclamation's draft Sac River Temperature Management Plan

To: <Eileen.Sobeck@waterboards.ca.gov>

Cc: <bay-delta@waterboards.ca.gov>, <Diane.Riddle@waterboards.ca.gov>, Garwin Yip - NOAA Federal <garwin.yip@noaa.gov>, Seth Naman <seth.naman@noaa.gov>, Roman Pittman - NOAA Federal <roman.pittman@noaa.gov>, Howard Brown - NOAA Federal <howard.brown@noaa.gov>

Dear Ms. Sobeck,

Reclamation provided a draft Sacramento River Temperature Management Plan (Draft TMP) in April 2022 to regulatory agencies as part of its water right requirement under Water Order 90-05 (WRO 90-5), as well as the requirements under RPM 1.a. of the 2019 National Marine Fisheries Service (NMFS) Biological Opinion, and the Interim Operations Plan, ordered by the US District Court on March 14, 2022. NMFS provides the following comments to the State Water Resources Control Board (Board) as part of Reclamation's requirement under water order 90-05 for your consideration in approving a final Temperature Management Plan for this year, as well as in development of new water temperature requirements on the Trinity River in the future. NMFS understands Reclamation is faced with exceptional water management challenges in this third year of critically dry water yield in the Trinity and Sacramento river basins. Our comments address operational considerations and Trinity Reservoir cold water pool management that will reduce the amount and extent of incidental take of threatened Southern Oregon/Northern California Coasts coho salmon:

In the first four weeks of spawning in November of 2021, approximately 75% of coho salmon eggs at Trinity River Hatchery (TRH) perished (Clifford 2022; Figure 1). Because water temperatures in the Trinity River were similar to that of TRH, a similar proportion of ESA listed wild SONCC coho salmon eggs likely perished. This occurred because low Trinity Reservoir storage resulted in high water temperatures released from Lewiston Dam which continued to climb in temperature until finally peaking in November, as the water released from Trinity Reservoir remained unseasonably warm.

Water temperatures in the Trinity River are known to be problematic when Trinity Reservoir reaches storages less than 1.2 MAF (million acre feet), as the main outlet begins to entrain warmer waters in the water column (Asarian et al. in prep). Projected Trinity Reservoir end-of-September (EOS) storage in 2022 will be less than 500 TAF (thousand acre feet), which is at least 250 TAF less than 2021 (EOS 750 TAF). In addition, Reclamation's draft plan includes the diversion of 91 TAF after October 1 2022 (Attachment 1 in the draft TMP). Complete loss of cold water less than 50°F may occur, and mortality of coho salmon could be even greater than 2021 this coming fall.

While Reclamation's Draft TMP for Water Year 2022 outlines several goals for the Sacramento River as it relates to compliance with WRO 90-5, the Draft TMP makes no mention of meeting the water temperature objectives in the Trinity River in order to comply with WRO 90-5. Reclamation's draft plan results in a Lewiston release temperature of 56.9°F in October from Lewiston Dam (Attachment 2 in the plan), which would exceed the Board's 56°F degree objective even without any downstream warming at both Douglas City and above the North Fork Trinity River (Figure 2).

WRO 90-5 states that "Permittee shall not operate its Trinity River Division for water temperature control on the Sacramento River in such a manner as to adversely affect salmonid spawning and egg incubation in the Trinity River...." Please note that Reclamation is already using the Trinity River for water temperature control on the Sacramento, despite the model results indicating it will not meet the 90-05 criteria for the Trinity River.

Therefore, we provide the following recommendations:

- We ask that the Board ensure the protection of the limited Trinity Reservoir cold water pool for salmon spawning success this fall, as provided in WRO 90-5.
- We recommend the Board require Reclamation to significantly curtail all diversions to the Central Valley until at which time in water year 2023, it can be determined that the Trinity Reservoir will recover to a projected EOS storage of at least 1.2 MAF in 2023.
- We recommend that the auxiliary outlet for Trinity Reservoir be used only following coordination with Trinity River basin stakeholder, managers, and Tribes. Unless significant impacts to Trinity River adult Chinook salmon are expected or observed in September and October of 2022, the auxiliary outlet should only be used after November 1 to reduce take of ESA listed coho salmon adults and eggs.
- WRO 90-5's water temperature criteria for 56°F at the Douglas City Bridge between Sept 15 and Oct 1 and at the confluence of the North Fork Trinity River between Oct 1 and Dec 31 are not sufficiently cold to prevent mortality of Chinook salmon and coho salmon eggs in the Trinity River. Therefore, NMFS recommends Reclamation meet water temperatures of 53.5°F (12°C) daily max and 50°F (10°C) daily average, or less after November 1.
- Finally, we recommend that the Board begin work to condition Reclamation's water right permit to include new water temperature requirements for the protection of all adult salmonids and their embryo on the Trinity River, including ESA listed SONCC coho salmon.

Thank you.

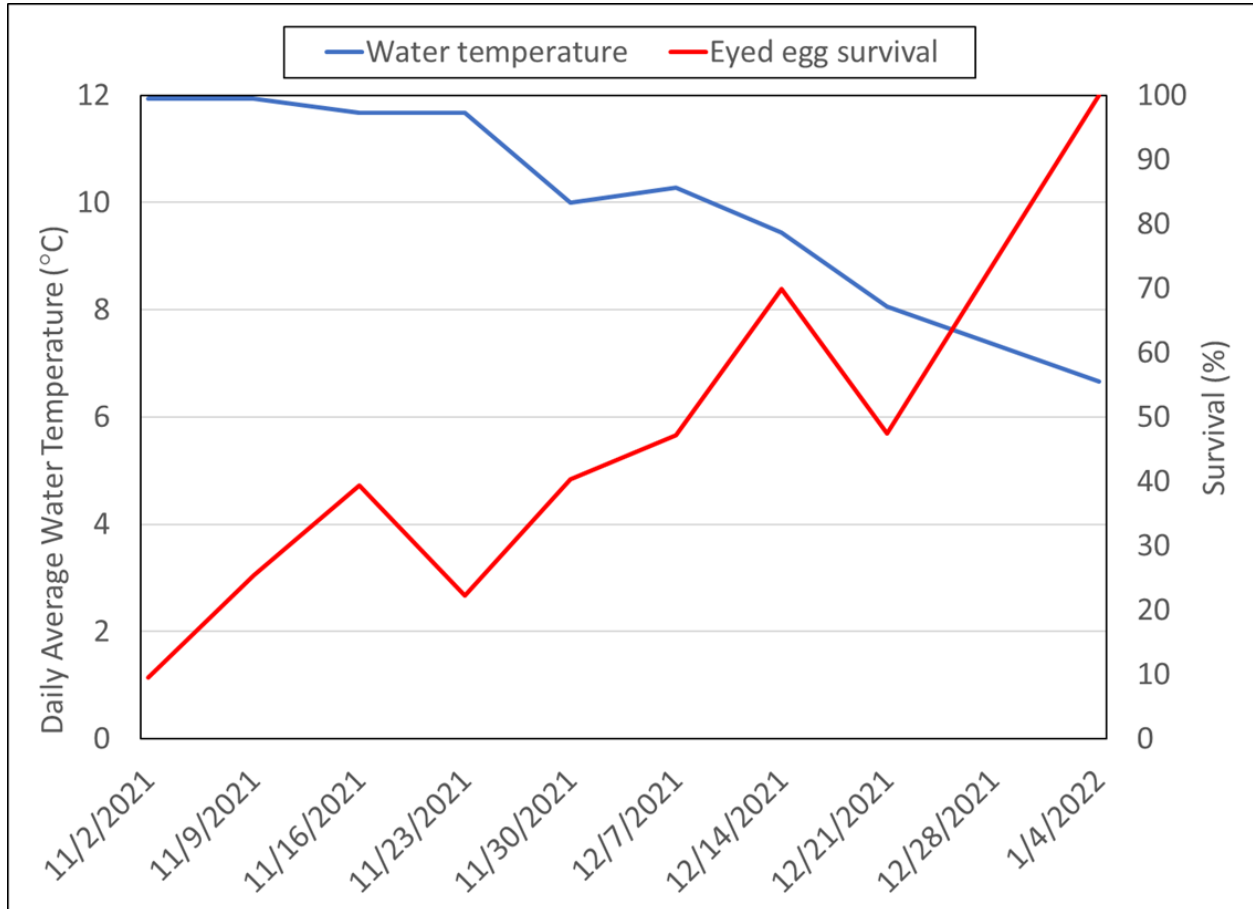


Figure 1. Coho salmon egg survival and Trinity River Hatchery water temperatures, 2021 (Clifford 2022)

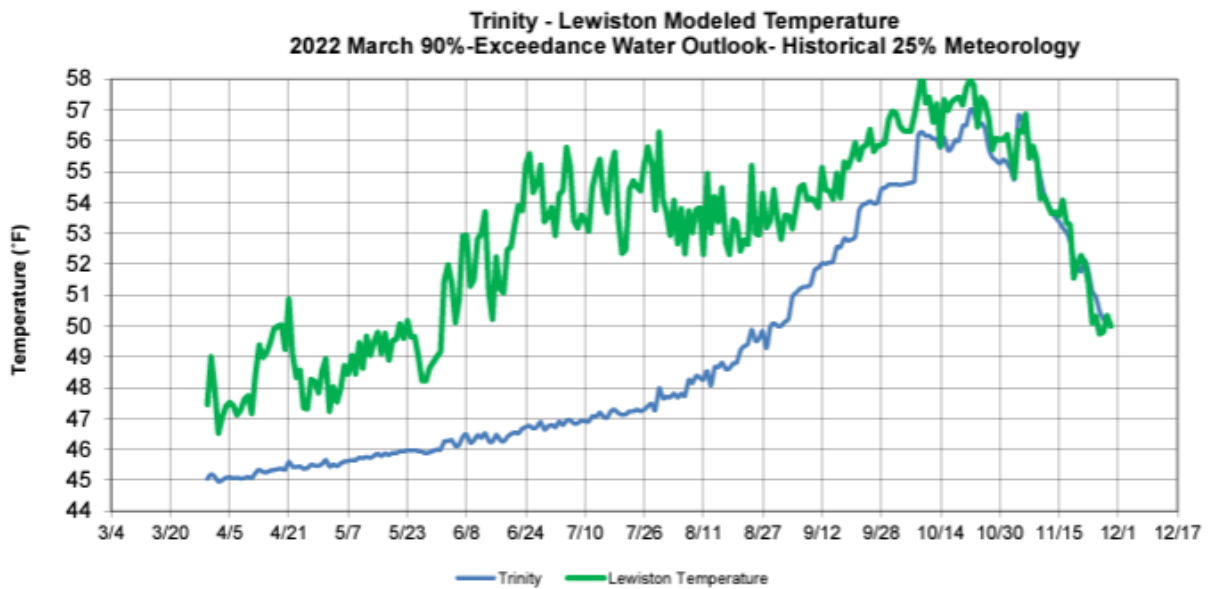


Figure 2. Projected Trinity River water temperatures at Lewiston (Reclamation 2022).

References:

Asarian, J.E., K. De Juilio, D. Gaeuman, S. Naman, and T. Buxton. In prep. Synthesizing 87 years of scientific inquiry into Trinity River water temperatures. Prepared for the Yurok Tribe Fisheries Program and Trinity River Restoration Program by Riverbend Sciences with assistance from the Yurok Tribe Fisheries Program, NOAA Fisheries, and U.S. Bureau of Reclamation.

Bureau of Reclamation. 2022. Draft Sacramento River Temperature Management Plan for Water Year 2022. April 6.

Clifford, M. 2022. Memo to Eric Jones regarding water temperature and coho salmon egg survival at Trinity River Hatchery in Brood Year 2021-2022. Northern Region Fisheries. CDFW. April 21

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Justin Ly

North Coast Branch Supervisor, West Coast Region

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