# MEMORANDUM

TO: SLDMWA Water Resources Committee Members and Alternates

FROM: Scott Petersen, Water Policy Director

DATE: September 9, 2024

RE: Update on Water Policy/Resources Activities

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## Background

This memorandum is provided to briefly summarize the current status of various agency processes regarding water policy activities, including but not limited to the (1) Reinitiation of Consultation on Long-Term Operations of the Central Valley Project and State Water Project, including environmental compliance; (2) State Water Resources Control Board action; (3) San Joaquin River Restoration Program; (4) Delta conveyance; (5) Reclamation action; (6) Delta Stewardship Council action; (7) San Joaquin Valley Water Blueprint and San Joaquin Valley Water Collaborative Action Plan.

## Policy Items

### Reinitiation of Consultation on Long-Term Operations of the Central Valley Project and State Water Project

In August 2016, the Bureau of Reclamation and California Department of Water Resources (DWR) requested reinitiation of consultation with NOAA Fisheries, also known as National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (FWS) due to multiple years of drought, low populations of listed species, and new information developed as a result of ongoing collaborative science efforts over the last 10 years.

On Jan. 31, 2019, Reclamation transmitted its Biological Assessment to the Services. The purpose of this action is to continue the coordinated long-term operation of the CVP and SWP to optimize water supply delivery and power generation consistent with applicable laws, contractual obligations, and agreements; and to increase operational flexibility by focusing on nonoperational measures to avoid significant adverse effects to species.

The biological opinions carefully evaluated the impact of the proposed CVP and SWP water operations on imperiled species such as salmon, steelhead and Delta smelt. FWS and NMFS documented impacts and worked closely with Reclamation to modify its proposed operations to minimize and offset those impacts, with the goals of providing water supply for project users and protecting the environment.

Both FWS and NMFS concluded that Reclamation's proposed operations will not jeopardize threatened or endangered species or adversely modify their critical habitat. These conclusions were reached for

several reasons – most notably because of significant investments by many partners in science, habitat restoration, conservation facilities including hatcheries, as well as protective measures built into Reclamation's and DWR's proposed operations.

On Oct. 21, 2019, FWS and NMFS released their biological opinions on Reclamation's and DWR's new proposed coordinated operations of the CVP and SWP.

On Dec. 19, 2019, Reclamation released the final Environmental Impact Statement analyzing potential effects associated with long-term water operations for the CVP and SWP.

On Feb. 18, 2020, Reclamation approved a Record of Decision that completes its environmental review for the long-term water operations for the CVP and SWP, which incorporates new science to optimize water deliveries and power production while protecting endangered species and their critical habitats.

On January 20, 2021, President Biden signed an Executive Order: "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis", with a fact sheet[1] attached that included a non-exclusive list of agency actions that heads of the relevant agencies will review in accordance with the Executive Order. Importantly, the NOAA Fisheries and U.S. Fish and Wildlife Service Biological Opinions on the Long-Term Operation of the Central Valley Project and State Water Project were both included in the list of agency actions for review.

On September 30, 2021, Reclamation Regional Director Ernest Conant sent a letter to U.S. FWS Regional Director Paul Souza and NMFS Regional Administrator Barry Thom requesting reinitiation of consultation on the Long-Term Operation of the CVP and SWP. Pursuant to 50 CFR § 402.16, Reclamation indicated that reinitiation is warranted based on anticipated modifications to the Proposed Action that may cause effects to listed species or designated critical habitats not analyzed in the U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) Biological Opinions, dated October 21, 2019. To address the review of agency actions required by Executive Order 13990 and to voluntarily reconcile CVP operating criteria with operational requirements of the SWP under the California Endangered Species Act, Reclamation and DWR indicated that they anticipate a modified Proposed Action and associated biological effects analysis that would result in new Biological Opinions for the CVP and SWP.

Following this action, on October 20, 2021, the SLDMWA sent a letter to Reclamation Regional Director Ernest Conant requesting participation in the reinitiation of consultation pursuant to Section 4004 of the WIIN Act and in the NEPA process as either a Cooperating Agency or Participating Agency.

On February 26, 2022, the Department of the Interior released a Notice of Intent to Prepare an Environmental Impact Statement (EIS) and Hold Public Scoping Meetings on the 2021 Endangered Species Act Reinitiation of Section 7 Consultation on the Long-Term Operation of the Central Valley Project and State Water Project[2]. In response to this, on March 30, 2022, the SLDMWA submitted a comment letter highlighting actions for Reclamation to consider during preparation of the EIS.

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[1] https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/fact-sheet-list-of-agency-actions-for-review/

[2] https://www.govinfo.gov/content/pkg/FR-2022-02-28/pdf/2022-04160.pdf



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During May 2022, Reclamation issued draft copies of the Knowledge Base Papers for the following management topics and requested supplementary material review and comments, to which the Authority submitted comment letters in June:

1. Spring-run Juvenile Production Estimate- Spring-run Survival Knowledge Base Document, May 2022
2. Steelhead Juvenile Production Estimate-Steelhead Survival Knowledge Base Document, April 2022
3. Old and Middle River Reverse Flow Management – Smelt, Chinook Salmon, and Steelhead Migration and Survival Knowledge Base Document, May 2022
4. Central Valley Tributary Habitat Restoration Effects on Salmonid Growth and Survival Knowledge Based Paper, March 2022
5. Delta Spring Outflow Management Smelt Growth and Survival Knowledge Base Document, May 2022
6. Pulse Flow Effects on Salmonid Survival Knowledge Base Document, May 2022
7. Summer and Fall Habitat Management Actions – Smelt Growth and Survival Knowledge Base Document, May 2022
8. Shasta Cold Water Pool Management – End of September Storage Knowledge Base Document, May 2022

Subsequent to the Knowledge Base Paper review, a Scoping Meeting was held, to which Water Authority staff provided comments, resulting in the release of a Scoping Report[3] by Reclamation in June 2022.

On October 14, 2022, Reclamation released an Initial Alternatives Report (IAR).

On May 16, 2023, Reclamation provided an administrative draft copy of the Proposed Action, titled "State and Federal Cooperating Agency Draft LTO Alternative" to agencies that have executed an MOU with Reclamation on engagement. Authority staff is reviewing the document and provided feedback to Reclamation, in coordination with member agencies and other CVP contractors.

On June 30, 2023, Reclamation released a draft Qualitative Biological Assessment for review by agencies that have executed an MOU with Reclamation on engagement, though Reclamation is not accepting formal comments. Note that this release does not initiate formal ESA consultation and is being provided to assist the fishery agencies in setting up their documents and resources for the formal consultation, which we expect to begin in late September/early October.

On July 21, 2023, Reclamation released an Administrative Draft Terrestrial Biological Assessment for review by agencies that have an MOU with Reclamation on engagement, though Reclamation is not accepting formal comments. Note that this release does not initiate formal ESA consultation and is being provided to assist the fishery agencies in setting up their documents and resources for the formal consultation, which we expect to begin in late September/early October.

On September 15, Reclamation released a Draft Environmental Impact Statement for 30-day NEPA Cooperating Agency review. The SLDMWA coordinated review of the document with member agencies

[3] https://www.usbr.gov/mp/bdo/docs/lto-scoping-report-2022.pdf

and technical consultants and submitted both high-level and technical comments on the document[4] on October 16.

On October 10, 2023, Reclamation transmitted an Aquatic species Quantitative Biological Assessment, and on October 18, 2023, Reclamation transmitted a Terrestrial Species Quantitative Biological Assessment to the Services and to consulting agencies pursuant to the WIIN Act.

On June 28, 2024, the U.S. Fish and Wildlife Service released their Draft Biological Opinion for WIIN Act agency review and comment, with comments due on July 29, after a two-week extension was granted by the Service. Authority staff coordinated with member agencies to provide comments on the document[5].

Additionally, on July 18, NOAA Fisheries released an incomplete draft Biological Opinion for WIIN Act agency review and comment, and subsequently released the Effects Analysis sections of the BiOp on July 25, 2024. Comments on the draft Biological Opinion were due on August 12, 2024, and Authority staff coordinated with member agencies to provide comments[6]. Additionally, members of the California Congressional delegation requested[7] an extension of the public comment period and NOAA Fisheries provided a response to the Congressional request[8].

Finally, on July 26, 2024, Reclamation released the Draft EIS on the LTO for a 45-day public review and comment period. The comment period is open until September 9, and Authority staff will be submitting comments on the document today and will provide those comments to the Board and GMs upon submittal.

## Current Milestones

- Sep: Trinity Modeling anticipated
- Sep 9: Draft LTO Public EIS Comments Due
- Oct 15: Final LTO FWS BiOp
- Nov 13: Final LTO EIS
- Dec 6: Final LTO NMFS BiOp
- Dec 13: Final LTO Record of Decision
- Early 2025: Trinity Cooperating Agency Draft EIS/Draft Biological Assessment
- Spring 2025: Trinity Public Draft EIS
- Late 2025: Trinity Biological Opinion, Final NEPA and ROD

**Note:** There are also Endangered Species Act consultations on the Trinity River and Klamath River that may have overlap/interactions with the consultation for the CVP/SWP.

[4] Request from Authority staff.

[5] Request from Authority staff.

[6] Request from Authority staff.

[7] See Appendix A.

[8] See Appendix A.

### Summer-Fall Habitat Actions, including Fall X2

The Draft US Fish and Wildlife Service Biological Opinion included language and analysis that built on work conducted through the Collaborative Science and Adaptive Management Program Delta Smelt Structured Decision-Making process that indicated that the best available scientific data does not show a likely benefit to delta smelt from the Fall X2 measure contained in the Proposed Action. In response, the Water Authority, working in coordination with Friant Water Authority, Westlands Water District, and the State Water Contractors, sent a letter[9] to Reclamation and the CA Department of Water Resources to request that the Fall X2 action be suspended for this water year and removed from the Proposed Action. A response to this request was provided by the agencies.[10]

## State Water Resources Control Board (State Water Board) Activity

### Bay Delta Water Quality Control Plan Update

#### *Background*

The State Water Board is currently considering updates to its 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Bay Delta Plan") in two phases (Plan amendments). The first Plan amendment is focused on San Joaquin River flows and southern Delta salinity ("Phase I" or "San Joaquin River Flows and Southern Delta Salinity Plan Amendment"). The second Plan amendment is focused on the Sacramento River and its tributaries, Delta eastside tributaries (including the Calaveras, Cosumnes, and Mokelumne rivers), Delta outflows, and interior Delta flows ("Phase II" or "Sacramento/Delta Plan Amendment").

During the December 12, 2018 Water Board Meeting, the Department of Water Resources ("DWR") and Department of Fish and Wildlife presented proposed "Voluntary Settlement Agreements" ("VSAs") on behalf of Reclamation, DWR, and the public water agencies they serve to resolve conflicts over proposed amendments to the Bay-Delta Plan update.[11] The State Water Board did not adopt the proposed VSAs in lieu of the proposed Phase 1 amendments, but as explained below, directed staff to consider the proposals as part of a future Delta-wide proposal.

**Phase 1 Status:** The State Water Board adopted a resolution[12] to adopt amendments to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and adopt the Final Substitute Environmental Document during its December 12, 2018 public meeting.

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[9] See Appendix A.

[10] See Appendix A.

[11] Available at https://water.ca.gov/-/media/DWR-Website/Web-Pages/Blogs/Voluntary-Settlement-Agreement-Meeting-Materials-Dec-12-2018-DWR-CDFW-CNRA.pdf.

[12] Available at https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/rs2018_0059.pdf.

Most recently, on July 18, 2022, the State Water Resources Control Board issued a Notice of Preparation (NOP)[13] and California Environmental Quality Act (CEQA) Scoping Meeting for the Proposed Regulation to Implement Lower San Joaquin River Flows (LSJR) and Southern Delta Salinity Objectives in the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta (Bay-Delta Plan).

The purpose of the NOP is: (1) to advise responsible and trustee agencies, Tribes, and interested organizations and persons, that the State Water Board or Board will be the lead agency and will prepare a draft EIR for a proposed regulation implementing the LSJR flow and southern Delta salinity components of the 2018 Bay-Delta Plan, and (2) to seek input on significant environmental issues, reasonable alternatives, and mitigation measures that should be addressed in the EIR. For responsible and trustee agencies, the State Water Board requests the views of your agency as to the scope and content of the environmental information related to your agency's area of statutory responsibility that must be include in the draft EIR.

In response to the release of the NOP, the Water Authority and member agencies provided scoping comments[14].

**Phase 2 Status**: In the State Water Board's resolution adopting the Phase 1 amendments, the Water Board directed staff to assist the Natural Resources Agency in completing a Delta watershed-wide agreement, including potential flow and non-flow measures for the Tuolumne River, and associated analyses no later than March 1, 2019. Staff were directed to incorporate the Delta watershed-wide agreement as an alternative for a future, comprehensive Bay-Delta Plan update that addresses the reasonable protection of beneficial uses across the Delta watershed, with the goal that comprehensive amendments may be presented to the State Water Board for consideration as early as possible after December 1, 2019.

On March 1, 2019, the California Department of Water Resources and the Department of Fish and Wildlife submitted documents[15] to the State Water Board that reflect progress since December to flesh-out the previously submitted framework to improve conditions for fish through targeted river flows and a suite of habitat-enhancing projects including floodplain inundation and physical improvement of spawning and rearing areas.

Since the March 1 submittal, work has taken place to develop the package into a form that is able to be analyzed by State Water Board staff for legal and technical adequacy. On June 30, 2019, a status update with additional details was submitted to the Board for review. Additionally, on February 4, 2020, the State team released a framework for the Voluntary Agreements to reach "adequacy", as defined by the State team.

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[13] Available at https://www.waterboards.ca.gov/public_notices/notices/20220715-implementation-nop-and-scoping-dwr-baydelta.pdf

[14] Request from Authority staff

[15] Available at http://resources.ca.gov/docs/voluntary-agreements/2019/Complete_March_1_VA_Submission_to_SWRCB.pdf

Further work and analysis is needed to determine whether the agreements can meet environmental objectives required by law and identified in the State Water Board's update to the Bay-Delta Water Quality Control Plan.

On September 28, The State Water Resources Control Board released a draft Staff Report in support of possible updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta Plan) that are focused on the Sacramento River watershed, Delta, and Delta eastside tributaries (Sacramento/Delta).

The draft Staff Report includes scientific information and environmental and economic evaluations to support possible Sacramento/Delta updates to the Bay-Delta Plan. The report assesses a range of alternatives for updating the Sacramento/Delta portions of the Bay-Delta Plan, including: an alternative based on a 2018 Framework document identifying a 55% of unimpaired flow level (within an adaptive range from 45-65%) from Sacramento/Delta tributaries and associated Delta outflows; and a proposed voluntary agreements alternative that includes voluntary water contributions and physical habitat restoration on major tributaries to the Delta and in the Delta. In addition, based on input from California Native American tribes, the draft Staff Report identifies the proposed addition of tribal and subsistence fishing beneficial uses to the Bay-Delta Plan.

The draft Staff Report is available for review on the Board's website. The Authority coordinated and submitted comments with member agencies[16].

### *Schedule*

#### *LSJR Flow/SD Salinity Implementation Next Steps Assuming Regulation Path (Phase 1)*

- Winter 2024/Spring 2025
  - Final draft Staff Report for Tuolumne River VA
  - Board workshop and consideration of Tuolumne River VA
  - Final draft EIR and regulation implementing Lower SJR flows and South Delta Salinity
  - Board consideration of regulation implementing Lower SJR flows and South Delta Salinity

#### *Sac/Delta Update: Key Milestones*

- Summer 2024: Development of Draft Program of Implementation
- Winter 2024: Response to comments and development of proposed final changes to the Bay-Delta Plan
- Spring 2025: Board consideration of adoption

### *Voluntary Agreements*

On March 29, 2022, members of the Newsom Administration joined federal and local water leaders in announcing the signing of a memorandum of understanding[17] that advances integrated efforts to improve

[16] Request from Authority staff.

[17] Available at https://resources.ca.gov/-/media/CNRA-Website/Files/NewsRoom/Voluntary-Agreement-Package-March-29-2022.pdf



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ecosystem and fisheries health within the Sacramento-San Joaquin Bay-Delta. State and federal agencies also announced an agreement[18] specifically with the Sacramento River Settlement Contractors on an approach for 2022 water operations on the Sacramento River.

Both announcements represent a potential revival of progress toward what has been known as "Voluntary Agreements," an approach the Authority believes is superior to a regulatory approach to update the Bay-Delta Water Quality Control Plan.

The broader MOU outlines terms for an eight-year program that would provide substantial new flows for the environment to help recover salmon and other native fish. The terms also support the creation of new and restored habitat for fish and wildlife, and provide significant funding for environmental improvements and water purchases, according to a joint news release from the California Natural Resources Agency and the California Environmental Protection Agency (CalEPA). Local water agency managers signing the MOU have committed to bringing the terms of the MOU to their boards of directors for their endorsement and to work to settle litigation over engaged species protections in the Delta.

On June 16, the SLDMWA, Friant Water Authority and Tehama Colusa Canal Authority signed onto the VA MOU. Additionally, since that time, in September and November, four more agencies – Contra Costa Water District, San Francisco Public Utilities Commission (SFPUC), Turlock Irrigation District (TID) and Modesto Irrigation District (MID) – have signed onto the VA MOU.

Work continues to develop the working documents associated with execution and implementation of the VA's and workgroups for participating agencies have been formed. A number of documents continue to be developed, including a global agreement, implementing agreements for each tributary, enforcement agreements, an updated Science Plan, and governance plan.

On April 24-26, the State Water Resources Control Board held a three-day workshop on the Agreements, with sessions focused on many of the more developed plans and details of the program.

## Delta Conveyance Project

### Delta Conveyance Project Operations Plan

On Friday, August 23, DWR announced that the DCP Operations Plan is available. The notice indicates that the operations are consistent with what has been included in prior public documents, including the final EIR (12/2023) and the Project ITP allocation (4/2024).

DWR is *not* looking for any comments – they are presenting the Operations Plan for the State Board and the public. Some takeaways from my high-level review:

- States that DCP operations will be consistent with any DCP settlement with permit conditions.
- Confirms that the DCP will not change operational criteria associated with upstream reservoirs. Pulls in language (in section 2.1) that is included in various settlement agreements.

[18] Available at https://calepa.ca.gov/2022/03/29/informational-statement-state-federal-agencies-and-sacramento-river-settlement-contractors-agree-on-approach-for-2022-water-operations-on-the-sacramento-river/

- Section 4.0 states that DWR "will continue to coordinate with USBR to minimize or avoid additional outflow requirements or require additional upstream stored water releases due to DCP operations." No additional detail is provided.
- Section 7.0 describes the potential use of the DCP for conveying transfers, which could reduce the amount of transfer water / Carriage Water flowing into the Delta. "If water transfers were diverted through the proposed north Delta intakes, buyers may assume that they will receive a larger percentage of the purchased water because less Carriage Water will be needed to maintain water quality."

## Petition for Change of Point of Diversion and Rediversion for the Delta Conveyance Project

On February 22, 2024, the State Water Resources Control Board (Board) received a Petition for Change from the Department of Water Resources (DWR) to add two new points of diversion (POD) and rediversion (PORD) to the water right permits associated with the State Water Project. Specifically, the petition seeks to change Water Right Permits 16478, 16479, 16481, and 16482 (Applications 5630, 14443, 14445A, and 17512, respectively). The proposed new PODs/PORDs would consist of screened intakes 2.3 miles apart located on the lower Sacramento River between Freeport and Sutter Slough. The proposed new intakes are part of the Delta Conveyance Project, which would allow DWR to divert water from the northern Sacramento-San Joaquin Delta Estuary (Delta) and convey the water through a tunnel to existing water distribution facilities in the southern Delta.

This petition is available on the DWR website at: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Delta-Conveyance/Public-Information/Revised_DCP_CPOD_Petition_Package_2024.pdf

Protests against the change petition must have been filed by May 13, 2024, with a copy provided to the petitioner. SLDMWA entered into a Settlement Agreement[19] with DWR on the project.

The State Water Resources Control Board (State Water Board or Board) Administrative Hearings Office will hold a public hearing about the Delta Conveyance Project beginning on **January 16, 2025**. The hearing will address the water right change petitions filed by the Department of Water Resources to add two new points of diversion and rediversion to the water rights associated with the State Water Project, Permits 16478, 16479, 16481, and 16482 (Applications 5630, 14443, 14445A, and 17512, respectively).

The purpose of the hearing is to gather evidence to determine whether to approve these petitions and, if so, what specific terms and conditions, if any, should be included in the amended permits for the State Water Project. The Administrative Hearings Office held a pre-hearing conference on **August 13, 2024,** after which the AHO's Presiding Officer Nicole Kuenzi vacated the September 5 deadline to submit written comments on hearing issues and the November 4 deadline for all parties to file initial notices of intent to appear at the hearings.

[19] Request from Authority staff.

**HEARING SCHEDULE AND DEADLINES**

| Deadlines / Schedule | Date and Time |
|---|---|
| Deadline to file optional pre-hearing conference statements. | **August 9, 2024** |
| Initial Pre-Hearing Conference. | **August 13, 2024, at 9:00 a.m.** |
| Deadline to submit written comments on hearing issues. | **September 5, 2024** |
| Second Pre-Hearing Conference. | **October 17, 2024, at 9:00 a.m.** |
| Deadline for all parties to file initial NOIs, including witness lists, and deadline for any interested person who intends to give a policy statement to file an NOI. | **November 4, 2024** |
| Deadline for parties to file case-in-chief exhibits, exhibit identification indices, and proposed permit terms. | **December 4, 2024** |
| Third Pre-Hearing Conference. | **December 16, 2024, at 9:00 a.m.** |
| Hearing begins with policy statements. | **January 16, 2025, at 9:00 a.m.** |
| Evidentiary portion of hearing begins. | **January 30, 2025, at 9:00 a.m.** |

## U.S. Bureau of Reclamation

### Reclamation Manual

#### *Documents out for Comment*

#### *Draft Policy*

- There are currently no draft Policies out for review.

#### *Draft Directives and Standards*

- ACM 01-01 Requirements for Award and Administration of Financial Assistance Agreements (Grants and Cooperative Agreements) (comments due 08/09/24)
    - July 9, 2024 ACM 01-01 Public Outreach Session Recording

#### *Draft Facilities Instructions, Standards, and Techniques (FIST)*

- There are currently no Instructions, Standards, and Techniques our for review.

#### *Draft Reclamation Safety and Health Standards (RSHS)*

- There are currently no Safety and Health Standards out for review.

#### *Draft Reclamation Design Standards*

- There are currently no Design Standards out for review.

## San Joaquin Valley Water Blueprint

The Water Blueprint for the San Joaquin Valley (Blueprint) is a non-profit group of stakeholders, working to better understand our shared goals for water solutions that support environmental stewardship with the needs of communities and industries throughout the San Joaquin Valley.

**Blueprint's strategic priorities for 2022-2025:** Advocacy, Groundwater Quality and Disadvantaged Communities, Land Use Changes & Environmental Planning, Outreach & Communications, SGMA Implementation, Water Supply Goals, Governance, Operations & Finance.



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**Mission Statement:** *"Unifying the San Joaquin Valley's voice to advance an accessible, reliable solution for a balanced water future for all.*

## Committees

### *Executive/Budget/Personnel*

Blueprint contribution requests have been circulated and Board members will be following up with participants.

## Activities

### *Great Valley Farm Water Partnership*

Initiated as the farmer-to-farmer summit it has evolved but still includes representatives from our regions working together on issues of mutual concern. Their mission is to advance solutions for a viable future for California's water. This farmer-to-farmer partnership is dedicated to fostering mutually beneficial water and environmental solutions through collaboration and expert guidance. By leveraging the best available science and working closely with subject matter experts, we aim to help decision makers and policy leaders recognize the system-wide benefits of cooperative strategies. Their actions are focused on reducing controversy, promoting unity, and advocating for practical, achievable outcomes that are viable for both our agricultural communities and our shared ecosystems. They have identified four guiding principles that are essential to accomplishing their mission: (1) Promotion of Sustainable Water Policies; (2) Champion and Expert Identification; (3) Facilitation of Mutual Understanding; (4) Advocacy for Collaborative Solutions.

### *Unified Water Plan for the San Joaquin Valley*

The Water Blueprint for the San Joaquin Valley Education Fund and the California Water Institute - Research and Education Division are working together to develop a Unified Water Plan for the San Joaquin Valley. This two-year project will culminate in the publication of a report to be submitted to Congress.

### *CVP and SWP Water Supply Restrictions Strategic Plan*[20]

The Hallmark Group developed a strategic plan and an implementation approach for review and approval by the Board. The Hallmark Group Contract for Strategic Advisory Services was approved for work completed from March 1, 2024, through on August 31, 2024. That contract was set at for a monthly retainer for 6 months. Hallmark billed against that retainer through the end of July 31. After the Strategic Plan was approved by the Blueprint Board, Hallmark provided a reduced level of effort while waiting for direction on the Implementation Plan. On a going forward basis Hallmark, starting September 1st, will continue on a time and materials for advisory services as needed through the end of the year.

The Board continues to express the importance of outreach to the public and state and federal officials specifically related to the efficacy of proposed regulations, water supply reductions, environmental and socio-economic impacts in the SJV. The objective is protecting the operational flexibility restored by 2019 biological opinions and 2020 record of decision for coordinated operations of the Central Valley Project and State Water Project, which restored approximately 300,000 acre-feet to the average south-of-Delta delivery capability of the projects, and to expand operational flexibility for the CVP and SWP. The plan is

[20] Request from Authority staff

organized into four principal topics: (1) objectives; (2) obstacles to achieving objectives; (3) means of overcoming obstacles; and (4) time frame.

### *Fall X2 Letter to the Governor and Secretary of the Interior*[21]

The letter highlights that the Fall X2 Action for delta smelt during the 2024 water year will create a significant and unnecessary hardship on communities, the agricultural industry, and environmental resources in the San Joaquin Valley by reducing water-supply availability. Furthermore, recent science has demonstrated that the action has not provided its intended benefits to delta smelt, a species protected under the state and federal Endangered Species Acts that is endemic to the Sacramento-San Joaquin Delta.

Talking Points on Ongoing Regulatory Processes Related to CVP and SWP Operations, have been drafted and are being finalized for circulation to local, state and federal elected and policy makers.

### *Urban Water Agency Partnerships*

Consistent with the MOU that was signed in May, Metropolitan Water District, Stantec and the Blueprint are reviewing a scope and budget for the mutual analysis of groundwater storage and conveyance opportunities in the Central Valley. Other urban agencies, including Valley Water, have expressed an interest in joining and coordinating with the Blueprint, in this investigation.

## San Joaquin Valley Water Collaborative Action Program (SJVW CAP)

### Background

The CAP Plenary Group adopted work groups to implement the CAP Term Sheet[22], adopted on November 22, 2022. During Phase II, Work Groups are continuing to meet and discuss priorities and drafting various documents for their respective areas: Safe Drinking Water; Sustainable Water Supplies; Ecosystem Health; Land Use, Demand Reduction and Land Repurposing; Implementation.

The Plenary group met on June 25 to continue discussion about the development the "One Water" component of the Central Valley Community Foundation's Jobs First Initiative[23], which has been renamed to Sierra San Joaquin Jobs (S2J2).

[21] See Appendix A

[22] Request from Authority staff

[23] Request from Authority staff

VI.

September 9, 2024

**VIA EMAIL**

U.S. Bureau of Reclamation, Bay-Delta Plan Office
Attention: Tim Warner
801 I Street, Suite 140
Sacramento, CA 95814-2536

Email: sha-MPR-BDO@usbr.gov

Re: Draft Environmental Impact Statement for the Long-Term Operations of the Central Valley Project

Dear Mr. Warner:

The San Luis & Delta-Mendota Water Authority, Westlands Water Authority, Del Puerto Water District, Henry Miller Reclamation District 2131, and San Joaquin River Exchange Contractors Water Authority, (collectively "Water Authority") appreciate the opportunity to provide these comments in response to the U.S. Bureau of Reclamation's ("Reclamation") Draft Environmental Impact Statement for the Long-Term Operations of the Central Valley Project, dated July 2024 ("Draft EIS"). The Water Authority is among the local agencies Reclamation has identified as a cooperating agency and provides input on the Draft EIS through this role.

Through this ongoing National Environmental Policy Act ("NEPA") process, Reclamation will be making policy decisions on a matter of vital importance to the future of California, including its protected fish and wildlife species, millions of people, and millions of acres of prime farmland. The Water Authority operates key Central Valley Project ("CVP") infrastructure, and its member agencies depend upon the CVP as the principal source of water they provide to users within their service areas. That water supply serves approximately 1.2 million acres of agricultural lands within areas of San Joaquin, Stanislaus, Merced, Fresno, Kings, San Benito, and Santa Clara Counties, a portion of the water supply for nearly 2 million people, including in urban areas within Santa Clara County referred to as the "Silicon Valley," and millions of waterfowl that depend upon nearly 200,000 acres of managed wetlands and other critical habitat within the largest contiguous wetland in the western United States. A list of the Water Authority's member agencies is attached as Exhibit A.

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Over the last thirty years, the Water Authority's member agencies and the region they serve have suffered a dramatic decline in the volume and reliability of CVP water supplies provided through annual contract allocations. That decline has resulted from increasing regulatory restrictions on CVP operations that reduce the water supply available for delivery under a given set of hydrological conditions. The loss of supply suffered by CVP contractors located south of the Delta has been disproportionately large; agricultural repayment and water service contractors south of the Delta receive the lowest average annual allocations of any group of CVP contractors, with commensurate harm being experienced by the communities reliant on this supply, including some of the most economically underdeveloped communities in California[1]. Any reasonable plan for future CVP operations would account for and seek to avoid further harm to an already distressed region. Yet the preferred alternative identified in the Draft EIS, Alternative 2b, once again concentrates further losses of supply on these contractors and the region they serve. While there are many reasons for rejecting Alternative 2 (including variant 2b), the disproportionately large reduction in CVP water supply Alternative 2 would inflict on the region served by the Water Authority's member agencies is reason enough to reject it.

The Water Authority recognizes that Alternative 2 does include implementation of the Healthy Rivers and Landscapes program ("HRL Program"), previously referred to as the "Voluntary Agreements." The Water Authority is supportive of the HRL Program, and the Final EIS and Record of Decision should contain sufficient analysis to allow the HRL Program to be implemented if approved by the State Water Resources Control Board. But Reclamation's NEPA analysis must comply with NEPA requirements, and describe which components of the preferred alternative and other alternatives are components of the HRL Program, and which components are something else – actions to "harmonize operations of the CVP and SWP" or actions to comply with federal Endangered Species Act ("ESA") requirements. Without understanding the "need" for the various components of the alternatives, the public cannot understand the difference in impacts from the same.

Notwithstanding the Water Authority's support of the HRL Program, issues with the NEPA analysis in the Draft EIS warrant these significant comments. The Water Authority provides eight main comments on the following topics: (1) the Draft EIS does not adequately respond to the Water Authority's prior comments on the Draft EIS; (2) actions proposed with the intent to benefit fish should reflect the best available science and the expected benefits of each alternative should be quantified for comparison; (3) the alternatives analysis is incomplete; (4) the Draft EIS does not adequately address environmental impacts to south-of-Delta communities and resources; (5) potential changes to Trinity River Division operations should be included in the cumulative effects analysis; (6) NEPA requires a more robust evaluation of the feasibility of mitigation measure AG-1; (7) NEPA requires Reclamation to determine if adverse impacts from loss of water supply can be avoided through mitigation; and (8) durable, legally defensible environmental review is in the collective interests of the federal agencies and water users. Additional detailed comments on the Draft EIS are provided in the spreadsheet submitted with this letter as Exhibit B.

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[1] See Figure 5 at https://www.census.gov/content/dam/Census/library/publications/2023/acs/acsbr-016.pdf (Page 7 of 15).



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**1. The Draft EIS Does Not Adequately Respond to the Water Authority's Comments on the Administrative Versions of the Draft EIS**

The Water Authority submitted comments dated October 16, 2023 and April 19, 2024 on earlier, administrative versions of the Draft EIS. Many of the comments in those two letters are still applicable to the Draft EIS. We incorporate by reference our comments made in the October 16 and April 19 letters and the attachments thereto. We briefly reiterate three of those prior comments in this letter.

First, the description of Alternative 2 (including Alternative 2b) in the Draft EIS still suggests that Reclamation will operate the CVP to conform to the standards and requirements of the California Endangered Species Act ("CESA") and the determinations of the California Department of Fish and Wildlife ("CDFW"). The Draft EIS says: "Alternative 2B was developed through a multi-agency consensus process including California Department of Fish and Wildlife, DWR, NMFS, and USFWS. . . . Alternative 2 incorporates the Delta criteria proposed in DWR's Incidental Take Permit for the Delta facilities of the SWP to harmonize operations of the CVP and SWP." (Draft EIS at 1-3.) Any newly adopted changes to the operating regime for the CVP must make clear that harmonizing or reconciling CVP and SWP operations must not and will not result in imposing CESA requirements or standards on the CVP. The CVP is not subject to regulation under CESA, and Reclamation has no authority to voluntarily submit to CESA regulation. The CVP operating criteria should be clear that the CVP will not be operated to meet requirements and standards developed under CESA.

Second, the Draft EIS should be but has not been updated to clearly explain how each alternative meets the three-prong purpose and need described in Chapter 2. (Draft EIS at 2-2.) The Draft EIS should include an explanation whether the proposed components of each alternative are legally mandated or discretionary, and identify the applicable legal authority for each. While Appendix C of the Draft EIS describes statutory, regulatory, and contractual requirements applicable to the CVP generally, nothing in the Draft EIS relates those requirements to the specific changes to CVP operations described in the alternatives.

Third, the description of the four variations of Alternative 2 remains difficult to decipher. Chapter 3 and Appendix E should be revised to include a complete description of the actions that are included in Alternative 2 and the four variations of Alternative 2. In addition, to aid understanding of the differences among the alternatives, the Draft EIS should include tables that provide side-by-side comparisons of the different actions included in each alternative.

**2. Actions Intended to Benefit Fish Should Reflect the Best Available Science and the Expected Benefits Should be Quantified for Comparison**

Actions intended to benefit various fish species in the Bay Delta watershed are a significant element of the proposed CVP and SWP operations described in each alternative. These actions address some species at low levels of abundance such as the delta smelt and winter-run Chinook salmon. Actions intended to benefit fish have taken a progressively increasing share of the yield of the CVP. CVP contractors located south of the Delta, in particular, have seen a significant decline in the volume and reliability of the water deliveries as a result of those actions. Yet, the

species intended to benefit from actions restricting and altering CVP and SWP operations remain at low levels of abundance. Different solutions are needed.

Alternatives 2, 3, and 4 in the Draft EIS would continue the approach of imposing still further flow-based restrictions and requirements on CVP operations for the purpose of benefiting fish populations. Imposing yet additional flow requirements and restrictions on CVP and SWP operations, with yet greater costs to water supply, must receive careful scrutiny in light of the history of past regulation and the best science available today. Actions with significant water supply costs should not be adopted without strong scientific evidence they will benefit the listed species they are intended to benefit. The Draft EIS does not demonstrate that restrictions with significant water supply impacts will yield meaningfully better outcomes for fish than other alternatives.

### a. The Fall X2 Measure Should be Eliminated From CVP and SWP Operations

The No Action Alternative, Alternative 2, Alternative 3, and Alternative 4 each include what is commonly referred to as the Fall X2 measure. (Draft EIS at 3-33, 3-54, 3-65, 3-73.) Under the Fall X2 measure, Reclamation and DWR would manage X2 to 80 kilometer (km) in September and October of wet and above normal years. This measure has been intended to improve habitat for the delta smelt. Fall X2 should be eliminated from future CVP and SWP operations, because it does not serve its intended purpose of benefiting the delta smelt, and carries a substantial water supply cost.

This year, two important findings were released regarding the efficacy of the Fall X2 operation. These built on previous findings and conclusions that Fall X2 produces no measurable benefits to Delta smelt. The first finding was published in a peer-reviewed journal, and the second was affirmation of those peer-reviewed findings in the draft USFWS biological opinion recently provided to interested stakeholders for review, pursuant to the provisions in the Water Infrastructure Improvements for the Nation Act ("WIIN Act", Pub. L. No. 114-332, 130 Stat. 1628). These findings add to the growing body of evidence that the Fall X2 action, as originally proposed in 2008 and as modified in 2019, does not provide the originally hypothesized benefit for delta smelt.

First, Polansky, et al. (2024) used life stage models of delta smelt to evaluate the potential of various flow augmentation operations on the species' population growth rate. The authors concluded that the Fall X2 measure did not appear to provide any measurable benefit to the species:

> *"The findings here suggest summer, **not fall** or winter–spring, is the most important season for freshwater flow augmentation to assist Delta Smelt population growth rate." [Emphasis added.]*

While more work is needed to understand the value of summer outflow to delta smelt and any contribution the CVP or SWP should make beyond the augmentation already occurring, the draft USFWS biological opinion shared pursuant to section 4004(a) of the WIIN Act further explains that the best available scientific data does not show a likely benefit to delta smelt survival from the Fall X2 measure:

> *The Delta Smelt Summer-Fall Habitat Action also includes a Fall X2 element (BA Section 3.7.6.1). The Fall X2 action is a 'pulse flow' in September of Wet and Above-Normal water years that carries over into October, which is officially the subsequent water year. As proposed, the pulse of freshwater would maintain a 30-day average X2 at 80 km in both months. The Fall X2 action was originally in the Service's 2008 Reasonable and Prudent Alternative (Service 2008) and was motivated by concerns about proposed 'flatlining' of habitat suitability in the autumn (Feyrer et al. 2011, p. 124 and their Fig. 5). The modeled Delta outflows for September and October are about the same in the PA as the NAA (i.e., within the CalSim 3 error) so there is no proposed change from baseline [Figure]. Currently proposed outflows in September and October are lower than what they were in the 1970s through 1990s (Feyrer et al. 2011, their Fig. 2), but they are higher than what occurred naturally [Figure]. . . . However, the more important question for the purposes of this effects analysis is whether the PA's fall flow regime will have negative effects on delta smelt, specifically if variation in fall outflow will result in a detectable change in survival of the affected life stage. The Service has previously concluded that it would (Service 2008; 2019); however, this conclusion is not supported by life cycle analysis [Table]. It is possible that the Fall X2 action could have effects on small numbers of delta smelt and that the effects could have positive or negative consequences.* (Draft USFWS BiOp, pgs. 100-101.)

The draft USFWS biological opinion evaluates the potential effects of the Delta Smelt Summer-Fall Habitat Action (i.e., operation of the SMSCG and the Fall X2 measure) on longfin smelt as well. It concludes the "*Delta Smelt Summer-Fall Habitat Action will not have discernable effects on the longfin smelt DPS.*" (Draft USFWS BiOp, pg. 207.) The draft USFWS biological opinion then explains:

> *Longfin smelt use the estuary very differently than delta smelt. A fundamental difference is the seasonality of the longfin smelt DPS's distribution in the estuary. By July, when the SMSCG would begin to be operated, the distribution of the longfin smelt DPS is not constrained by an upper salinity bound. . . . When longfin smelt begin returning to the estuary in the fall, distribution is broad but is influenced by X2 (CDFW 2020, their Fig. 2). However, there is no information available to indicate that the location of X2 affects survival of fish by this stage in their life beyond potentially affecting the risk of entrainment.* (Draft USFWS BiOp, pgs. 205, 207.)

While the biological opinion is a draft, it is also fresh in its release, and for these conclusions relies upon rigorous, peer-reviewed scientific studies. It is also consistent with several other studies of Fall X2 that have been conducted since the measure was first (and controversially) proposed in 2008.

Fall X2 has had varying, but significant, water supply and associated socioeconomic costs when implemented, and has resulted in the redirection of millions of acre-feet of water that could have been beneficially used since its implementation in 2008. For example, in 2023 alone, the water cost to implement the measure was estimated to be greater than 730,000 acre-feet between

the two projects. This water could have otherwise been kept in storage, delivered for use at farms and in cities, stored or banked for drought resiliency or used for a variety of other purposes, including other environmental purposes like improving water quality or temperature improvements. For the 2024 operational year, Fall X2, if fully implemented, is anticipated to reduce the CVP and SWP water supplies by an estimated 350,000 acre-feet, through a combination of reduced exports and additional releases from upstream reservoirs. For context, this is equivalent to one-third of Folsom Lake or nearly $200 million worth of water, if purchased on the open market, with untold additive economic value to the State were it able to be used in a different manner.

Advances in scientific knowledge since 2008 have made clear that Fall X2 does not serve its intended purpose of benefiting the delta smelt, but does impose a substantial water supply cost. The Fall X2 measure should not be included in CVP (or SWP) operations going forward. The Water Authority has urged Reclamation not to implement the Fall X2 measure in 2024. Reclamation and other interested agencies have responded that they plan to go forward with implementation, but perhaps modify the action. This is documented in an exchange of letters in August 2024; the letters are included in the Appendix submitted with this comment letter.

### b. The Draft EIS Does Not Show Meaningful Projected Benefits for Fish Populations From Further Restrictions on CVP Operations

The discussion in the Draft EIS of the effects of each alternative on fishery resources in the Delta is predominantly qualitative, using descriptive terms such as "is expected to have an adverse or beneficial impact", "is expected to have minor adverse or beneficial impacts", "is expected to have negligible impacts", and "is expected to have minor to moderate" effects. There are no standardized criteria presented in the Draft EIS that differentiate what constitutes a minor impact from a negligible or moderate impact. Reliance on these qualitative descriptions makes it impossible to compare and evaluate the potential significance of differences among alternatives. Where fishery-impact metrics are used, the difference among alternatives is so small that the Draft EIS cannot present a scientific basis or rationale for selecting one alternative over another. For example, Figures 0-33, 0-34, and 0-20 show no substantive differences in outcomes for Central Valley Chinook salmon populations.

The Draft EIS does not present any direct comparisons of the effects expected from the several alternatives. A new section should be added to Chapter 12 that provides a comparative summary of the effects of each alternative for each relevant location and species. Placing those effects side by side for comparison would be useful and informative. The Appendix submitted with these comments includes a table with the expected effects of CVP and SWP operations under Alternative 2 and Alternative 4 according to the Draft EIS. The effects include temperature dependent mortality for winter-run Chinook salmon eggs downstream of Keswick Dam and effects on fish within the Delta. As the table explains, differences in effects on fish habitat or survival between the two alternatives are negligible. The substantial additional water supply costs of Alternative 2 over Alternative 4, as an example, are not worth the negligible expected benefits for fish.

The credibility and reliability of the Draft EIS would be improved substantially by the addition of a section following the introduction in Chapter 12 that: (1) provides an overview of the approach(es) used in performing the effects analyses, (2) identifies the modeling tools (with reference to the specific pages in Appendix O describing each analysis and where the results of the "technical analyses" are presented), and (3) describes the criteria used to identify significant adverse effects, the criteria and analyses used to distinguish significant differences between alternatives, the criteria used to determine an impact is negligible, minor, moderate, or severe — for example, impacts to salmon survival that only occur in one year may be considered to be moderate (affecting only one year class), while the same annual impact over 3 consecutive years could result in a more severe impact to the population.

Finally, the discussion of the fishery benefits expected to attend Alternative 2b provides little support for the analyses and findings intended to serve as a basis for policy-level assessment in comparison to the other alternatives considered in the Draft EIS. A wide range of simulation modeling analytical tools are available and should be applied to assess quantitatively and evaluate Alternative 2b against the other alternatives in the Draft EIS.

### c. Future CVP Operations Should Include Robust Adaptive Management

The Draft EIS acknowledges that adaptive management is an integral element of implementing and evaluating the performance of actions in meeting their intended biological objectives. The Draft EIS describes the adaptive management as:

> *"Adaptive Management: science and decision analytic-based approach to evaluate and improve actions, with the aim to reduce uncertainty over time and increase the likelihood of achieving and maintaining a desired management objective."* (Draft EIS at 3-3)

Several of the management actions subject to assessment in this Draft EIS are candidates for implementation in an adaptive resource management framework, including but not limited to three actions that currently are the subjects of review and advice by a committee engaged by the National Academies, as requested by Reclamation. Management actions that are likely to be implemented in adaptive frameworks and subject to adjustment or amendment are those with greater water-cost requirements that have significant uncertainties associated with predictions of biological outcomes and species-specific ecological and behavioral responses. Those are the same uncertainties that have resulted in substantial amounts of qualitative impact assessments for the Draft EIS analyses, instead of the preferable quantitative assessments.

Adaptive management actions can be expected to adjust spatial attributes of the management action, the timing of the action, and/or the intensity of the action or volume of water dedicated to the action. Potential adjustments for an adaptively managed action may involve moving it between water-year categories -- critical, dry, below-average, above-average, wet. In any such case, an adjusted action is expected to either enhance benefits to the target species and/or reduce the water costs associated with implementing the action to provide the anticipated benefit. Important to the analysis of any adaptively managed action, those actions may be accompanied by increased or lessened impacts on other sensitive species or other species of concern. Any such



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changes in the attributes of the adaptively managed action can result, but will not necessarily result, in environmental impacts different from those predicted by models that address actions not subject to adaptive adjustments.

The Draft EIS can better address the environmental impacts of management actions most likely to be implemented in an adaptive framework. First, it is important to identify those actions that are anticipated to be subject to adaptive management. They are the actions that have the most consequential scientific uncertainties, that have previously been identified as requiring better justification, including using enhanced monitoring or directed studies, and those that require greater water allocation commitments to implement the action.

Once prospective adaptive management actions are identified, the second step is to expand the analyzed-effects assessment envelope to consider a range of prospective adjustments to the action, both in the timing of the action as well as the water allocated for implementing the action. For instance, if a prescribed management action in the Draft EIS requires the release of 10,000 acre-feet of water and has been analyzed at that action level, the adaptive management framework analysis would be expanded to consider the effects of the adjusted action from 8,000 acre-feet (the action necessitating and adapting to a lower required water commitment) to 12,000 acre-feet (a greater water commitment). Additionally, the timing of the prospective adaptive management action may require adjustment. Analyses might consider adjustments of several weeks, but probably not more than a month, as well as adjustments that could require implementation in more or fewer water-year types.

The Draft EIS currently contains primarily qualitative effects analyses drawn from operational models that make ecological projections from data and analyses accompanied by substantial uncertainties. As such, an expansion of analyses to accommodate ranges of adaptive management is unlikely to require significant additional analysis.

The Water Authority recommends that the Draft EIS be expanded to include:

- A description of the Adaptive Management framework and decision-making process;
- Identification of those elements of proposed action that are anticipated to be subject to adaptive management;
- Identification of the proposed process for defining the intended biological outcomes from the identified actions that will be included in the Adaptive Management framework and the associated measurable objectives that will be used to assess the performance of each action;
- Identification of monitoring criteria required to evaluate each action;
- Identification of the range of potential adaptive management refinements to an action; and
- Assessment of the potential effects of modifying each adaptively managed action for the upper and lower bounds on each action in the Final EIS and the Section 7 ESA consultation process.

It is essential to assess the prospective environmental impact of any management action that will be or may be implemented in an adaptive resource management framework as the action is described in this Draft EIS, but the effects analysis should also incorporate a sufficient range to



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anticipate potential adjustments or amendments to the action consistent with its implementation in an adaptive framework. Without a sufficiently robust effects analysis, additional subsequent analysis may be required before adapting the action in response to updated information. That could delay and may limit the effectiveness of the Adaptive Management Program to modify operations consistent with increased scientific understanding of the effects of various actions on the physical environment.

The Final EIS should describe, in sufficient detail, the agency process to reach conclusion on actions to be adaptively managed, as well as a firm commitment and process to implement adaptively managed actions without further procedures to meet statutory or regulatory requirements for those adaptively managed actions. The Water Authority is prepared to offer Reclamation technical and management-level assistance in developing the recommended additions to the Draft EIS associated with a more robust Adaptive Management Program.

## 3. The Alternatives Analysis in the Draft EIS Is Inadequate

### a. The Draft EIS Fails to Consider Whether Each Alternative Is Consistent With Reclamation's Contractual Obligation to Deliver Up to Stated Quantities When It Can Do So Consistent With Applicable Legal Requirements

A statement of purpose and need in an EIS serves to inform the public of why the agency is proposing an action, and to frame the reasonable range of alternatives. Reclamation's NEPA Handbook explains: "This brief statement is a critical element that sets the overall direction of the process and serves as an important screening criterion for determining which alternatives are reasonable. All reasonable alternatives examined in detail must meet the defined purpose and need." (Reclamation's NEPA Handbook at 8-5.) The Draft EIS states the "purpose of the action considered is to continue the operation of the CVP and the SWP, for authorized purposes, in a manner that . . . Satisfies Reclamation contractual obligations and agreements." (Draft EIS at 2-1.) As this statement confirms, Reclamation's contractual obligations are an important aspect of the required analysis. All reasonable alternatives examined in detail must meet this need.

In CVP repayment and water service contracts, the United States promises to deliver a stated quantity of water to its contractors each year. (See, e.g., San Luis Water District, Contract No. 14-06-200-7773A-IRI-P, Art. 3(a).) This promise to deliver the stated quantity each year is subject to "applicable State water rights permits, and licenses, [and] Federal law." (*Id.*) The United States is excused from delivering the full quantity stated in the contract if it cannot do so because of causes beyond its control such as drought or because of actions taken to meet legal requirements. (*Id.*, Art. 12(b).) As Appendix C to the Draft EIS summarizes, under the water service and repayment contracts "Reclamation is shielded from any liability if there is a shortage of water due to drought or actions taken by Reclamation to meet a legal obligation." (Draft EIS, Appx. 3 at 68.) However, the United States must deliver as much of the stated annual quantity as it can consistent with hydrology and legal requirements. (*Id.*, Art. 11(a) ("[T]he Contracting Officer shall make all reasonable efforts to optimize Project Water deliveries to the Contractor as provided in this Contract."); Art. 12(a) ("[T]he Contracting Officer will use all reasonable means to guard against a Condition of Shortage in the quantity of Project Water to be made available to the Contractor.").) In exchange for this delivery commitment, the CVP repayment and water service contractors have

agreed to repay the capital costs of the CVP and pay for the ongoing operation and maintenance of the CVP. Under these contracts, Reclamation cannot make voluntary changes to CVP operations that would reduce contract allocations. That is, Reclamation must deliver the water it promised to deliver unless it is precluded from doing so by drought or legal requirements.

According to the Draft EIS, three of the four alternatives being considered would reduce allocations to CVP agricultural contractors south of the Delta. The Draft EIS explains that relative to the No Action Alternative "[u]nder Alternative 1, there would be an increase in water supply deliveries for CVP agricultural contractors south of the Delta. Under Alternatives 2, 3, and 4, deliveries to CVP agricultural water users would decrease. Changes are concentrated in dry and critical water year conditions." (Draft EIS at 0-13.) These projected decreases in water allocations relative to the No Action Alternative would be a consequence of changes to the operating regime for the CVP, not hydrology. Changes to the operating regime of the CVP that would result in reduced allocations but are not necessary to meet legal requirements are inconsistent with Reclamation's contractual obligations.

The Draft EIS fails to address whether the alternatives would be consistent with Reclamation's contractual obligations. The Draft EIS does not address whether any of the changes to CVP operations included in Alternatives 2 (including 2b), 3 and 4 are necessary to meet statutory or regulatory requirements. For example, there is no discussion in the Draft EIS regarding which of the changes to CVP operations included in Alternative 2 are necessary to meet Reclamation's obligations under the ESA. Nor does the Draft EIS mention Reclamation's contractual obligation to optimize deliveries up to the stated contract quantity after accounting for drought and legal requirements.

This failure to consider Reclamation's contractual obligations is readily apparent with respect to the preferred alternative, Alternative 2. Alternative 2 includes actions that are not legally required of the CVP, but instead are intended to "harmonize" CVP operations with SWP operations and to implement a "multi-agency consensus" regarding operations. The Draft EIS says: "Alternative 2 consists of actions developed with the California Department of Fish and Wildlife, DWR, NMFS, and USFWS to harmonize operational requirements of CVP with California Endangered Species Act requirements for the SWP. It includes actions and approaches for the CVP and SWP identified by the state and federal fish agencies, in addition to the water supply and power generation objectives of Reclamation and DWR." (Draft EIS at 3-1.) It further explains Alternative 2 "represents actions and tradeoffs made to reach consensus among Reclamation, DWR, USFWS, CDFW, and NMFS." (Draft EIS, Appx. E at E-67.) The requirements of CESA do not apply to operations of the CVP. Voluntary actions taken to conform CVP operations to CESA-based requirements that also reduce deliveries are inconsistent with Reclamation's contractual obligations. To the extent such voluntary actions reduce exports during "excess conditions," they are also in violation of federal law. *See San Luis & Delta-Mendota Water Authority v. U.S. Dept. of the Interior*, No. 1:11-cv-00952 LJO GSA, E.D. Cal. 2015, 2015 WL 893365. That Reclamation reached a "consensus" with other agencies based on "tradeoffs" does not establish a legal requirement to implement Alternative 2. Instead, what this description reveals is that Alternative 2 includes voluntary actions by Reclamation that may reduce CVP water allocations to the Water Authority's member agencies. Such reduced deliveries would be inconsistent with Reclamation's



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contractual obligation to deliver up to the full contract quantity when it can do so consistent with hydrology and legal requirements.

The Draft EIS's description of Alternative 3 likewise confirms it cannot be implemented consistent with Reclamation's contractual obligations. "Alternative 3 consists of operation to increased Delta outflow up to 65% of unimpaired inflow and to carryover storage requirements in addition to other measures. This alternative was developed in coordination with the NGO community." (Draft EIS at 3-1.) Reclamation is under no legal requirement to implement these measures, and the measures would cause devastating reductions in water supply deliveries to levels far below contracted quantities. "Alternative 3 would reduce (by approximately 17%) average annual deliveries to CVP M&I water users, would reduce (by approximately 70%) average annual deliveries to CVP agricultural water users, and would reduce (by approximately 38%) average annual deliveries to SWP M&I water users." (Draft EIS at 5-5.) Reclamation cannot voluntarily adopt the measures in Alternative 3 without breaching its contractual obligations. There is no mention of this infeasibility of Alternative 3 in the Draft EIS.

In sum, the Draft EIS entirely fails to consider an important aspect of the issue before Reclamation – whether the proposed changes to CVP operations described in the several alternatives are consistent with Reclamation's contractual obligations. Many are not. The alternatives analysis, including the reasonable range of alternatives, must be thoroughly revised and reconsidered to account for Reclamation's purpose and need to satisfy its "contractual obligations and agreements." (Draft EIS at 2-1.)

**b. The Federal Agencies Must Explain Whether the Measures in Alternative 2 Are Necessary to Avoid Jeopardy or Adverse Modification of Critical Habitat, And If So What Scientific Data Support That Conclusion and Why Measures With Lesser Water Supply and Economic Impacts Are Inadequate**

Under ESA section 7, a federal agency must ensure its actions are not likely to jeopardize listed species or adversely modify their critical habitat. (16 U.S.C. § 1536(a)(2).) That determination is made by the federal action agency in consultation with USFWS or NMFS. If USFWS or NMFS believes a proposed agency action would jeopardize a listed species or adversely modify critical habitat it must identify reasonable and prudent alternatives that would not do so. (16 U.S.C. § 1536(b)(3)(A).) A proposed agency action that would not pose jeopardy or adverse modification of critical habitat may go forward essentially as proposed, subject to reasonable and prudent measures designed to minimize the impact of incidental take. The reasonable and prudent measures in a biological opinion cannot involve major changes such as altering the basic design, location, duration, or timing of the action. (50 C.F.R. § 402.14(i)(2).)

In section 4004(a) of the WIIN Act, Congress sought to ensure cooperation, transparency and accountability in ESA consultations regarding operations of the CVP and the SWP. In subdivision (4) of section 4004(a), Congress directed the federal agencies involved in those consultations to provide public water agency contractors an opportunity to review and comment on draft documents prepared in the consultation process. In the current ongoing consultation, the Water Authority has accordingly been provided administrative draft copies of the biological opinions prepared by USFWS and NMFS for review, and has provided comments on those drafts.



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Unfortunately, the draft biological opinions provided for review were materially incomplete, as the Water Authority has explained in its prior comment letters. The Water Authority looks forward to a further opportunity for comment on complete drafts of the biological opinions when they are available and prior to finalization.

This comment concerns the requirements of subdivisions (5) and (6) of section 4004(a), regarding reasonable and prudent alternatives. Under section 4004(a)(5) of the WIIN Act, the Water Authority's member agencies must be provided an "opportunity to confer with" Reclamation "about reasonable and prudent alternatives prior to" Reclamation "identifying one or more reasonable and prudent alternatives for consideration by" USFWS or NMFS. There has been no such conference. Under section 4004(a)(6) of the WIIN Act, if USFWS or NMFS suggest a reasonable and prudent alternative, they must explain to the Water Authority's member agencies "how each component of the alternative will contribute to avoiding jeopardy or adverse modification of critical habitat and the scientific data or information that supports each component of the alternative" and "why other proposed alternative actions that would have fewer adverse water supply and economic impacts are inadequate to avoid jeopardy or adverse modification of critical habitat." No such explanations have been provided to the Water Authority.

For purposes of the ESA consultation, USFWS and NMFS have used Alternative 2 as the proposed action. In a typical ESA consultation, the action agency defines its proposed action and then submits that proposed action to the consulting wildlife agency for its biological opinion regarding effects on listed species. If the consulting wildlife agency concludes the proposed action would cause jeopardy or adverse modification, it must identify any reasonable and prudent alternatives. That is not what has occurred for Alternative 2. Instead, the Draft EIS states that Alternative 2 is a "consensus" plan that "includes actions and approaches for the CVP and SWP identified by the state and federal fish agencies." (Draft EIS at 3-1.) Thus, USFWS and NMFS (and state agencies) could be considered as much the authors of the proposed action in Alternative 2 as is Reclamation. But it is unclear whether USFWS and NMFS deemed any of the new actions applicable to CVP operations they suggested that are included in Alternative 2 to be necessary to avoid jeopardy or adverse modification.

Neither the Draft EIS nor the draft biological opinions assert the changes to CVP operations included in Alternative 2 are necessary to avoid jeopardy or adverse modification of critical habitat that would otherwise be caused by CVP operations under the No Action Alternative. Yet, Alternative 2 includes major changes to CVP operations that would significantly impair the CVP's ability to deliver water to many of the Water Authority's member agencies. The new measures in Alternative 2 thus go well beyond the scope of permissible reasonable and prudent measures. The major changes Alternative 2 would require to CVP operations, together with the authorship of Alternative 2 by the consulting wildlife agencies, are hallmarks of a reasonable and prudent alternative. If any of the new actions in Alternative 2 were included because they were deemed necessary to avoid jeopardy or adverse modification, the federal agencies have circumvented the conference and disclosure requirements of subdivisions (5) and (6) of section 4004(a) of the WIIN Act.

To ensure compliance with section 4004(a) of the WIIN Act, Reclamation, USFWS and NMFS must clarify whether any of the changes to CVP operations proposed in Alternative 2 are



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necessary to avoid jeopardy or adverse modification of critical habitat. If so, Reclamation must confer (albeit belatedly) with the Water Authority regarding those changes as required by subdivision (5), and USFWS and NMFS must provide the further detailed information about those changes as required by subdivision (6). Failing to do so would violate the purpose and intent of section 4004(a) of the WIIN Act and circumvent Congressional direction.

**4. The Draft EIS Does Not Adequately Address Environmental Effects to South-of-Delta Communities and Resources**

**a. Constraints on the Availability of Groundwater Under SGMA Should Be Included in the Quantitative Analysis of Water Supply Impacts**

The Draft EIS acknowledges that its quantitative estimates of the supply of groundwater available to substitute for losses of CVP surface water supply are wrong. The estimates are wrong because the model used to estimate changes in use of groundwater does not account for limitations on pumping under the Sustainable Groundwater Management Act ("SGMA"). The Draft EIS says:

> The C2VSimFG model does not simulate limitations to groundwater pumping that may be imposed as part of a local GSP. Therefore, the simulated groundwater pumping values may overestimate the amount of groundwater pumping in certain areas. Groundwater basins denoted to be in overdraft conditions will likely have more limitations on groundwater pumping per SGMA.

(Draft EIS at 6-6 to 6-7.) Appendix I of the Draft EIS confirms that the modeling analysis included assumptions regarding groundwater availability that were not constrained by adopted Groundwater Sustainability Plans ("GSPs"). (Appendix I, pgs. I-81 – I-82.) Rather than correct for this overestimate of the availability of groundwater, the Draft EIS simply reports the simulated groundwater pumping in the Central Valley estimated by the model without modification. (*Id.* at 6-8 to 6-10.) By omitting existing restrictions on groundwater use[2] from the quantitative modeling, the modeling results have failed to consider enforceable legal limits on groundwater extraction and cannot accurately project how this resource category – and the other related resources categories – would be impacted.

Groundwater is too important a resource for the Central Valley to leave to an admittedly incomplete analysis. The Draft EIS states groundwater "is estimated to account for about 38% of the overall water supply in the northern portion of the San Joaquin Valley Groundwater Basin (California Department of Water Resources 2013a)." (*Id.* at 6-3 – 6-4.) The estimates of changes in groundwater pumping to compensate for lost surface supply should be adjusted to account for

[2] SGMA requires that each GSP adopted to govern groundwater extraction in a particular groundwater basin provide "measurable objectives" and "minimum thresholds" that are designed to prevent "undesirable results" to groundwater resources. (Wat. Code, § 10727.2(b)(4); 23 C.C.R. § 354.30.) These "measurable objectives" and "minimum thresholds" are "based on quantitative values" and the GSA must ensure that groundwater extractions stay within those limits. (23 C.C.R. §§ 354.30(b), (d), (e).)



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limitations on pumping imposed under SGMA, particularly for those subbasins with approved Groundwater Sustainability Plans that are under current implementation.

If water users cannot replace lost surface water supplies with groundwater, then they may have no choice but to fallow land, abandon permanent crops, or for those communities reliant on groundwater for drinking water supplies, enforce significant conservation measures on the residents of their community. Chapter 14 of the Draft EIS purports to address regional economics. It reports that the "SWAP" model adjusts its estimate of economic impacts based on limitations imposed on groundwater pumping under SGMA. The SWAP model documentation explains: "Groundwater availability is specified by Subbasin-specific Sustainable Yields and GSA-specific allocations (in areas where GSAs have defined allocations). These are determined by reviewing GSPs, GSP updates, GSP technical appendices, and GSA meeting minutes and policies." (Draft EIS, Attach. Q-3 at Q-3.15.) It is not apparent why a similar method could not be used to adjust estimates of groundwater pumping under the C2VSimFG model.

**b. Recent Experience Indicates That the CalSim Modeling Likely Understates Potential Water Supply Impacts From Periods When Export Pumping Is Curtailed After Biological Thresholds Are Triggered**

Alternative 2 includes a number of "Real-time Adjustments" that apply operational restrictions to operations of the CVP and SWP when certain "thresholds" are reached. These thresholds include: (1) the Delta Smelt Adult Entrainment Protection Action (Turbidity Bridge) (Draft EIS at 3-49); (2) Longfin Smelt Adult Entrainment Protection Action (*id.* at 3-50); (3) Winter-Run Chinook Salmon Loss Thresholds (*id.* at 3-52); (4) Steelhead Weekly Distributed Loss Thresholds (*id.* at 3-53); and (5) Spring-Run Chinook Salmon and Surrogate Threshold (*id.* at 3-53). Once a specific threshold is reached, the operators of the CVP and SWP are required to adjust operations based on the restrictions that are associated with each threshold (*e.g.*, if cumulative loss of either natural or hatchery winter-run Chinook salmon in a brood year exceeds 50% of the annual loss thresholds, then DWR and Reclamation will restrict south Delta exports to maintain a seven-day average OMR value no more negative than -3,500 cubic-feet per second ("cfs") for seven consecutive days). When these thresholds are reached, there are adverse effects on water supply. However, the modeling and other analysis in the Draft EIS fails to quantify the potential water supply impacts associated with these proposed operational components of Alternative 2.

In early 2024, CVP operations were subject to restrictions that were triggered by the "Steelhead Weekly Distributed Loss Thresholds," which resulted in a change in Old and Middle River ("OMR") reverse flow restrictions from -5,000 cfs to -500 cfs. CVP operators complied with this sudden change in OMR reverse flow restrictions by implementing a swift and significant reduction in South of Delta ("SOD") exports. The total water supply impacts associated with this reduction in SOD exports is estimated to be 95,000 acre-feet of foregone SOD exports by the CVP, as compared to what would have been available if these restrictions were not in place. This amount of water has an approximate value of $62 million, meaning that the imposition of this action resulted in major economic impacts.

Despite the significant adverse effects to water supply that have been associated with implementation of real-time operations thresholds under the existing operations regime, the Draft



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EIS fails to meaningfully evaluate the potential water supply impacts that will occur if real-time operations thresholds are triggered. For example, even though it is difficult to predict whether a particular threshold will be triggered in a particular year, it is not difficult to predict the potential water supply impacts that will occur if a particular threshold is triggered. Assumptions regarding the scale of these water supply impacts could and should be incorporated into the modeling, along with available data regarding the likelihood that they will occur in a given year, to provide the public and decision-makers with insight into the potential scale of these impacts. Even if Reclamation determines that providing a quantitative evaluation of the impacts associated with these thresholds is too speculative, NEPA still requires Reclamation to provide a more detailed evaluation of the potential significance of these impacts than is currently included in the Draft EIS.

The Draft EIS acknowledges the likelihood that, because Alternative 2b includes more restrictive "QWEST criteria" and the "extension of the CCF operation period," it may result in more frequent "real-time adjustments" (e.g., more frequently meeting seasonal thresholds or weekly thresholds) than the No Action Alternative. The potential impacts of these changes on water exports are discussed in Chapter 4 – Water Quality (Draft EIS at 4-12), Chapter 5 – Water Supply (*id.* at 5-6), Chapter 6 – Groundwater (*id.* at 6-18), Chapter 9 – Air Quality (*id.* at 9-14), Chapter 10 – GHG Emissions (*id.* at 10-13), Chapter 12 – Aquatic Resources (*id.* at 12-57 – 12-58), Chapter 14 – Regional Economics (*id.* at 14-12 – 14-13), Chapter 15 – Land Use and Agricultural Resources (*id.* at 15-19), Chapter 17 – Environmental Justice (*id.* at 17-7), and Chapter 18 – Power (*id.* at 18-10 – 18-11). Missing from the discussion of these impacts is any estimate as to the scale or significance of these impacts, which reduce water supplies to CVP agricultural water users beyond the 9% average reduction identified on pg. 5-4. (*id.* at 5-6). Specifically, the qualitative analysis of Alternative 2b is intended to build on the quantitative analysis, however, the qualitative analysis fails to provide any estimation of the extent to which Alternative 2b would increase the severity of the impacts (e.g., whether Alternative 2b would result in two or three times the amount of water supply reductions, or whether the additional water supply reductions are anticipated to be minor).

The failure of the Draft EIS to identify and evaluate the severity of the potential environmental consequences of the more frequent "real-time adjustments" that will occur under Alternative 2b is inconsistent with Reclamation's obligations under NEPA. (42 U.S.C. § 4332(2)(C); 40 C.F.R. § 1502.1; *Great Basin Res. Watch v. Bureau of Land Mgmt.*, 844 F.3d 1095, 1104-1106 (9th Cir. 2016) (finding an EIS deficient for failure to include a "quantified assessment" of impacts.).) Anything short of an attempt to quantify the increased severity of the potential water supply impacts, and related impacts to other resources categories, from the implementation of Alternative 2b fails to comply with Reclamation's mandate pursuant to NEPA to take a "hard look" at the potential environmental consequences of their proposed action. (*Id.*)

**c. The Draft EIS Does Not Sufficiently Describe the Economic and Environmental Justice Impacts of Reduced CVP Deliveries South of the Delta**

As the Draft EIS recognizes, the labor force that drives the agricultural economy in California predominantly consists of minority and/or low-income individuals who are concentrated in the San Joaquin Valley. (Draft EIS at 17-5.) The Draft EIS contemplates that Alternative 3 will result in a loss of 11,366 agricultural jobs, resulting in a 16.2% reduction in the



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farm worker labor force throughout the San Joaquin Valley Region. In reaching these conclusions, the Draft EIS understates the actual likely impacts by failing to analyze the significant indirect economic effects across other employment sectors. The figures provided in the Draft EIS alone are drastic; however, the actual impacts could be much greater taking into account the many employers and businesses that are highly dependent upon agricultural customers. For example, many retailers who sell farm equipment and other supplies are dependent on productive farms and farm workers to support their businesses. When water supplies decline or become unreliable, the downstream economic effects are expansive: the fields are fallowed, the farm workers lose their jobs, and agriculture-dependent businesses lose their income. (Appendix at 57 [Shires (2022)].)

The indirect economic effects—which the Draft EIS fails to explore—do not end with agriculture-dependent businesses. As one study by Shires (2022) highlighted in the context of the Westlands Water District, encompassing Fresno and Kings Counties, "water supply and the cost of water, quite literally, drive the scale and character of the economic activity within the District." (Appendix at 39.) Therefore, as water supplies are reduced or become unreliable, the farm workers in this region who are the backbone of the agricultural economy are forced to leave to more dependable regions. (*Id.* at 57.) As the work force leaves, there are additional significant impacts that are realized such as lower enrollment in schools and less money to hire teachers and staff. (*Id.*)

To the extent Chapter 14 of the Draft EIS recognizes that "[c]hanges to irrigated acreage and agricultural revenue would impact businesses and individuals who support farming activities" under Alternative 3 (Draft EIS at 14-6), the modeling fails to account for many of the indirect impacts highlighted by Shires (2022). The Draft EIS relies upon IMPLAN to estimate reasonable economic effects based solely upon "fixed price agricultural revenue." However, as page 14-6 of the Draft EIS identifies, "fixed price revenue" accounts only for price adjustments for crops resulting from demand shifts. In turn, the IMPLAN modeling fails to consider "price effect revenue" which accounts for other price changes caused by changes in crop production and supply shifts. (Draft EIS at 14-6.) To the extent that this analysis is driven only by price adjustments for crops and not other downstream effects associated with impacts to the agricultural sector, the Draft EIS does not take the requisite "hard look" at the potential regional economic effects in the San Joaquin Valley. (See Appendix at 57 (when a farm "goes out of business . . . the overall impact on employment is much greater than the marginal impacts identified in the regional impact models because the entire staff becomes unemployed.").)

By evaluating only direct job losses and increased water supply costs, the Draft EIS omits any consideration of the potentially significant economic effects on other sectors of the Central Valley economy whose primary customers are employed in the agricultural sector. The failure to evaluate these potential effects is inconsistent with Reclamation's requirement to take a "hard look" at potential consequences of its proposed action. (*Great Basin*, *supra*, at 1104-1106.)

In addition to underestimating economic effects, the Draft EIS erroneously assumes a continued supply of groundwater and increased groundwater pumping to supplement the declines in CVP and SWP deliveries. This is discussed above, in our comments regarding the failure of the Draft EIS to make any quantitative estimate of limits on groundwater pumping under SGMA. While Chapter 17 of the Draft EIS makes some attempt to address the direct impacts of increased groundwater pumping (i.e., building infrastructure to dig deeper), the Draft EIS fails to analyze



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the significant economic impacts of fallowing within the San Joaquin Valley when both surface water and groundwater supplies run dry, or when SGMA precludes increased groundwater pumping.

Groundwater supplies in the San Joaquin Valley are already in jeopardy due to climate change, new development, and SGMA implications. As a study by Sunding et al. (2020) found, the implications of SGMA and other anticipated surface water reductions within the San Joaquin Valley are expected to fallow nearly 1 million acres of crops in the coming decades, resulting in a $7 billion loss in crop revenues and a nearly $2 billion loss in farm operating income. (Appendix at 7-8.) Indeed, Chapter 17 of the Draft EIS anticipates that reductions in CVP and SWP deliveries could affect access to groundwater and generate new economic burdens to regain groundwater access. (Draft EIS at 17-6 ["[s]hould reduced groundwater elevations result in reduced water accessibility for residents within the San Joaquin Valley Region, . . . well owners may be forced to take on additional economic burdens to modify their existing wells or pay for water from a different source."].) As discussed above the quantitative analysis of future groundwater pumping under the alternatives does not account for legal restrictions under SGMA. The Draft EIS thus fails to take a "hard look" at the extent to which fallowing will occur due to reductions in both surface water and groundwater availability, meaning that the potential economic impacts are likely understated.

Finally, the severe localized economic impacts of the alternatives in the Draft EIS are diluted by the expansive population areas included within the "San Joaquin Valley Region." While the Draft EIS recognizes that reduced surface water will lead to job losses and other impacts among the agricultural sector within the San Joaquin Valley Region—which purports to include Fresno, Kern, Kings, Madera, Merced, San Joaquin, Stanislaus, and Tulare Counties—the Draft EIS fails to address the concentrated impacts that will be realized in Fresno, Tulare, Kern, and Kings Counties where individuals' livelihoods are most vulnerable to further restrictions on water supply. Ground and surface water supplies do not flow equally throughout the Central Valley, and whatever supplies exist are not equally allocated. Sunding et al. (2020) found that that the economic implications of groundwater pumping under SGMA, including the impacts of surface water reductions, are mostly concentrated in Fresno, Tulare, Kern, and Kings Counties. (Sunding et al. (2020) at 2.) These counties "see the largest losses in employment and employee compensation," including "the largest reductions in harvested acreage and farm operating income." (*Id.*) Therefore, the over-expansive regional economic impact analysis for the San Joaquin Valley Region dilutes the significant economic impacts of water supply reductions in areas of the Valley where those impacts will be disproportionately large.

**d. The Draft EIS Does Not Sufficiently Describe the Environmental Impacts of Reduced CVP Deliveries South of the Delta**

While the Draft EIS acknowledges that reduced CVP water supplies to the San Joaquin Valley "would have impacts on the availability of aquatic habitat for giant garter snake and northwestern pond turtle" (Draft EIS at 13-10), no further analysis is included. The Draft EIS states elsewhere that impacts on those listed species from reduced CVP water deliveries "are outside the scope of this alternatives analysis" because, for example, "Reclamation does not control the distribution of water to CVPIA wildlife refuges beyond initial water year allocations." (Draft EIR

at 13-6.) It is Reclamation's water allocations under the proposed alternatives that could directly cause adverse impacts to listed species in the San Joaquin Valley. The mechanics of how that water is thereafter distributed to habitat is not relevant when compared with the effects of reducing the water allocations in the first place. The Draft EIS does not adequately analyze the potential effects of reduce water deliveries on threatened species in the San Joaquin Valley.

### e. The Draft EIS Understates the Severity of the Potential Adverse Effects of Alternative 3 on Groundwater Resources That Are Projected by Existing Modeling

As discussed above the groundwater modeling for the Draft EIS fails to account for limitations on pumping under SGMA. The analysis of impacts to groundwater in the Draft EIS is further flawed because it fails to acknowledge the severity of adverse effects to groundwater resources that are identified in Appendix I. Figures I-20 through I-24 (Draft EIS at I-195 – I-199) depict the modeled changes in groundwater elevation that would result from Alternative 3, and show simulated declines of groundwater elevation of between 100 feet to 200 feet in certain areas, particularly in the Westside Subbasin (DWR Groundwater Subbasin Number 5-22.09).

In evaluating the impacts, the Draft EIS states that "Alternative 3's contribution to cumulative impacts on groundwater resources is anticipated to be minimal." (Draft EIS at 224.) Contrary to this conclusion, if these simulated declines in groundwater elevation were to materialize, then it would result in groundwater conditions that are lower than authorized under the GSP for the Westside Basin. Also, because approximately 85% of groundwater use in the Westside Subbasin is pumped from an aquifer located below "Corcoran Clay," there is a significant likelihood that a projected decline of 200 feet will contribute to subsidence that is likely to result in negative impacts to critical infrastructure. Because these simulated declines in groundwater elevation have a significant likelihood of causing impacts that would constitute "undesirable results" under SGMA as well as effects to physical infrastructure that are not analyzed, Reclamation should revisit its conclusions regarding the potential cumulative impacts of Alternative 3.

## 5. Potential Future Changes to Trinity River Division Operations Should be Included in the Cumulative Effects Analysis in the Draft EIS

Reclamation is currently considering changes to operations of the Trinity River Division that would affect the rest of the CVP and the resources discussed in the Draft EIR, including winter-run Chinook salmon spawning and rearing in the Sacramento River. Based on information shared with "interested stakeholders" in quarterly public meetings, the potential changes include establishing a minimum pool of carryover storage in Trinity Lake, and limits on the volume and timing of moving water from the Trinity River to the Sacramento Valley.[3] Those changes to operations of the Trinity River Division, if adopted, could require significant revisions to the CVP operations analyzed in the Draft EIS, with significant related environmental consequences. Under

[3] A PowerPoint presentation dated April 18, 2024 and distributed by Reclamation describes alternatives for changes to Trinity River Division operations and the related NEPA review and ESA consultation. A copy of the presentation is included in the Appendix accompanying this letter.



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the current schedule for the Trinity River Division project, Reclamation would make a decision on changes to operations of the Trinity River Division in late 2025.

An EIS must include an analysis of cumulative effects. An EIS must analyze "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions." (40 C.F.R. § 1508.1(i)(3); *Oregon Natural Resources Council Fund v. Goodman*, 505 F.3d 884, 892-93 (9th Cir. 2007) [EIS inadequate for failure to adequately discuss future impacts on listed species of two future projects].)

The potential changes to the Trinity River Division now being considered for adoption by Reclamation in 2025 are not included in the cumulative effects analysis in the Draft EIS. Table Y-2 in Appendix Y is a list of reasonably foreseeable future actions included in the cumulative effects analysis. (Draft EIS at Y-16 to 21.) Changes to Trinity River Division operations are not included in Table Y-2. Appendix Y explains that Reclamation screened reasonably foreseeable future actions based on whether they are "are similar in nature with the 2021 Reinitiation of Consultation for Long-Term Operation of the Central Valley Project and State Water Project, have impacts on individual resources, and which overlap temporally and spatially with project-related impacts." (Draft EIS at Y-2.) The potential changes to operations of the Trinity River Division fit each of these criteria. The cumulative impacts analysis in the Draft EIS must be revised to account for potential changes to the operations of the Trinity River Division.

**6. NEPA Requires a More Robust Evaluation of the Feasibility of Mitigation Measure AG-1 Which is Identified in Chapters 11, 15, and 21 of the Draft EIS**

The Draft EIS identifies Mitigation Measure AG-1, "Diversify Water Portfolios," which states that:

> Water agencies should diversify their water portfolios. Diversification could include the sustainable conjunctive use of groundwater and surface water, water transfers, water conservation and efficiency upgrades, and increased use of recycled water or water produced through desalination where available.

(Draft EIS, Appendix D, at D-14.) This mitigation measure has been identified as a means of reducing the potential impacts of the alternatives on the following resource categories: (1) Visual Resources (Ch. 11); (2) Land Use and Agricultural Resources (Ch. 15); and (3) Public Health and Safety (Ch. 21). As discussed below, the Draft EIS fails to include a sufficient evaluation of whether Mitigation Measure AG-1 would be effective at reducing the impacts to each of these resource categories as required by NEPA.

Under NEPA, Reclamation is required to "discuss the extent to which adverse effects can be avoided." (*Japanese Village, LLC v. Federal Transit Administration*, 843 F.3d 445, 455 (9th Cir. 2016) *citing Robertson v. Methow Valley Citizens Council,* 490 U.S. 332, 351-52 (1989) (quoting 42 U.S.C. § 4332(2)(C)(ii)).) NEPA also requires an EIS to discuss appropriate and possible mitigation measures. (40 CFR §§ 1502.14(f), 1502.16(h), 1508.25(b).) The mitigation measures "need not be legally enforceable, funded or even in final form to comply with NEPA's

procedural requirements" (*Protect Our Communities Foundation v. Jewell*, 825 F.3d 571, 582 (9th Cir. 2016) *citing Nat'l Parks & Conservation Ass'n v. U.S. Dep't of Transp.*, 222 F.3d 677, 681 n.4 (9th Cir. 2000)), however, the EIS still must discuss mitigation measures "in sufficient detail to ensure that environmental consequences have been fairly evaluated." (*City of Carmel-By-the-Sea v. United States DOT*, 123 F.3d 1142, 1154 (9th Cir. 1997) (quoting *Robertson*, *supra*, at 352-53)). Specifically, the Ninth Circuit in *Protect Our Communities Foundation* found that an "essential component of a reasonably complete mitigation discussion is an assessment of whether the proposed mitigation measures can be effective" (*Protect Our Communities*, supra, at 582) and that a "mitigation discussion without at least some evaluation of effectiveness is useless in making that determination." (*AquAlliance v. U.S. Bureau of Reclamation*, 287 F. Supp. 3d 969, 1052 (E.D. 2018) *citing S. Fork Band Council Of W. Shoshone Of Nevada v. U.S. Dep't of Interior*, 588 F.3d 718, 727 (9th Cir. 2009) (hereinafter "*S. Fork Band*").)

In *S. Fork Band*, the court found that an EIS prepared by the Bureau of Land Management ("BLM") failed to comply with NEPA because it did not include a discussion of the effectiveness of mitigation measures relating to groundwater and instead determined that "[f]easibility and success of mitigation would depend on site-specific conditions and details of the mitigation plan." (*Id.*) BLM argued that this mitigation measure was sufficient because "it is impossible to predict the precise location and extent of groundwater reduction, and that problems should instead be identified and addressed as they arise." (*Id.*) The court found that NEPA required BLM to take the hard look *before* the environmentally harmful actions are put into effect, and that BLM was required to investigate the potential impacts in greater detail and determine the extent to which they can be avoided. (*Id.*)

Here, the Draft EIS identifies AG-1 as a mitigation measure that will potentially mitigate certain adverse effects associated with Alternative 2, but the associated analysis in the relevant chapters of the Draft EIS does not evaluate whether or not it will be effective or state that Reclamation cannot reasonably locate information to evaluate whether or not it will be effective. For example, the discussion regarding Mitigation Measure AG-1 states that it "could reduce effects by encouraging water agencies to diversify their water portfolios, thus increasing likelihood that water users would have adequate water" but the analysis regarding the feasibility of AG-1 simply provides that: "[b]ecause Reclamation does not have authority to implement this measure, Reclamation cannot ensure that it will be implemented." (Draft EIS at 15-8, 15-10.)

This attempt to defer evaluation of the effectiveness of a mitigation measure does not comport with the clear requirements of NEPA. Mitigation Measure AG-1's suggestion that water agencies should "diversify" sources of water supply to compensate for losses of CVP supply is not particularly helpful. The Draft EIS does not analyze what more water agencies can feasibly do. Whether any substitute water supplies are available, or at what cost, is not addressed anywhere in the Draft EIS. The Water Authority's member agencies are already leaders in water conservation and are actively engaged in groundwater recharge projects. Supplies of transfer water are already scarce and expensive and would be made more so by the proposed changes to CVP operations. And water that is never delivered to the region cannot be recycled.

Reclamation suggests that it is not required to evaluate whether Mitigation Measure AG-1 can feasibly be implemented. To the contrary, like the groundwater mitigation that was at issue in



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*S. Fork Band*, Reclamation is required to at least attempt to understand whether there are replacement water supplies that can be made available to offset potential impacts. (*S. Fork Band*, *supra*, at 727.) Because the Draft EIS does not contain any evaluation of whether there are replacement water supplies available to offset losses of CVP supply, the Draft EIS does not contain the "evaluation of effectiveness" of Mitigation Measure AG-1 that is required under NEPA. (*Id.*)

**7. The Draft EIS Fails to Adequately Address Potential Mitigation Measures**

Alternative 2 would result in a maximum reduction of approximately 9% in average annual deliveries to CVP agricultural water users. (Draft EIS at 5-4.) Additionally, Alternative 2b would result in additional unquantified impacts to water exports that would primarily impact CVP agricultural water users. (Draft EIS at 5-6.) The use of average annual losses masks the even more severe impacts in dry and critical years, and consecutive dry or critical years. The impact of dry and critical years can exacerbate the environmental effects of a long-term loss of supply.

The cascade of potential environmental consequences associated with these water supply reductions on particular resource categories are briefly discussed in several sections of the Draft EIS, including Chapter 5 – Water Supply, Chapter 6 – Groundwater, Chapter 9 – Air Quality, Chapter 14 – Regional Economics, and Chapter 17 – Environmental Justice. The Draft EIS does not identify any mitigation measures at all for these resource categories, not even the unexamined Mitigation Measure AG-1. (Draft EIS at Appendix D.)

As noted above, NEPA requires that Reclamation "discuss the extent to which adverse effects can be avoided." (*Japanese Village, LLC*, supra, at 455.) NEPA also requires an EIS to discuss appropriate and possible mitigation measures (40 CFR §§ 1502.14(f), 1502.16(h), 1508.25(b)), in "sufficient detail to ensure that environmental consequences have been fairly evaluated." (*City of Carmel-By-the-Sea v. United States DOT*, 123 F.3d 1142, 1154 (quoting *Robertson*, *supra*, at 352-53)).

Because the Draft EIS does not identify mitigation measures that are intended to address the potential environmental consequences associated with reductions in water supply to CVP agricultural water users, it does not to comply with NEPA's requirement to evaluate the extent to which adverse effects can be avoided.

**8. Durable, Legally Defensible Environmental Review Is In The Collective Interest of the Federal Agencies and Water Users**

The Water Authority understands that evaluating changes to the operating regime of the CVP is a complex and time-consuming task, and that agency resources are limited. The Water Authority appreciates the efforts by federal agency staff to provide opportunity for review and comment on administrative drafts of the EIS and the biological opinions. But as the Water Authority has explained in its prior comment letters, the administrative drafts provided were materially incomplete. The Water Authority has not been provided the opportunity for review and comment required by section 4004 of the WIIN Act. The Draft EIS, too, is materially lacking in many ways, as described above.

It is in the Water Authority's and the Federal Agencies' collective interest to complete the current NEPA and ESA consultations with a durable, legally defensible EIS and Record of Decision and durable, legally defensible biological opinions. The operations of the CVP are simply too important to have incomplete or partial analysis that creates potential legal exposure.

**Conclusion**

In conclusion, the Water Authority thanks Reclamation for this opportunity to review and comment on the Draft EIS. The Water Authority looks forward to opportunities to continue to engage with Reclamation and all responsible agencies to develop a plan for future operations of the CVP that best serves its multiple purposes and recognizes the vital importance of CVP water supply for the region served by the Water Authority's member agencies.

Respectfully submitted,

J. Scott Petersen, P.E.
Director of Water Policy
San Luis & Delta-Mendota Water Authority

Allison Febbo, General Manager
Westlands Water District

Anthea Hansen, General Manager
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John Wiersma, General Manager
Henry Miller Reclamation District 2131

Chris White, Executive Director/Secretary
San Joaquin River Exchange Contractors
Water Authority



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September 9, 2024

Email: sha-MPR-BDO@usbr.gov

Mr. Tim Warner
U.S Bureau of Reclamation
Attention: Bay-Delta Office
801 I Street, Suite 140
Sacramento, CA 95814

Re: Public Comment on Draft Environmental Impact Statement for Long-Term Operation of the Central Valley Project and the State Water Project

Dear Mr. Warner:

The State Water Contractors and its member agencies (collectively SWC) appreciate this opportunity to comment on the public draft Environmental Impact Statement for the Long-Term Operation of the Central Valley Project (CVP) and the State Water Project (SWP) herein (Draft EIS). The SWC members are 27 water districts serving 27 million residents and 750,000 acres of farmland receiving water from the SWP.[1]

While we understand that the "Proposed Action" is Alternative 2, we are very concerned about the inclusion of Alternative 3 in the Draft EIS without any explanation of why this alternative is not feasible, as it is contrary to both law and contracts. Alternative 3 should be dropped from further consideration. Alternative 3 would cost communities south of the Delta millions of acre-feet (AF) of water, billions of dollars in replacement water costs and lost economic productivity, and tens of thousands of jobs. The SWC further objects to Alternative 3 because the Draft EIS' analysis of this alternative is inconsistent, incomplete, and misleading. The SWC is also seeking clarifications related to the Proposed Action and to the programmatic discussion of the Sites Reservoir project.



[1] Alameda County Flood Control District Zone 7, Alameda County Water District, Antelope Valley – East Kern Water Agency, Casitas Municipal Water District, Central Coast Water Authority, City of Yuba City, Coachella Valley Water District, Crestline – Lake Arrowhead Water Agency, Desert Water Agency, Dudley Ridge Water District, Empire West Side Irrigation District, Kern County Water Agency, Kings County, Littlerock Creek Irrigation District, Metropolitan Water District of Southern California, Mojave Water Agency, Napa County Flood Control and Water Conservation District, Oak Flat Water District, Palmdale Water District, San Bernardino Valley Municipal Water District, San Gabriel Valley Municipal Water District, San Gorgonio Pass Water Agency, San Luis Obispo County Flood Control and Water Conservation District, Santa Clara Valley Water District, Santa Clarita Valley Water Agency, Solano County Water Agency, and Tulare Lake Basin Water Storage District.

## I. Alternative 3 should be rejected as infeasible and not given any further consideration.

### A. Alternative 3 is infeasible and results in economically devastating effects on California communities.

The Draft EIS explains its assessment of alternatives that were ultimately rejected from further analysis, being infeasible. Reclamation's criteria for making that determination are as described in Appendix V, Screened Scoping Comments, and include:

- How well each Alternative would meet the purpose and need;
- The extent that the Alternative or component is complete;
- Whether the Alternative is technically and economically feasible, meaning the technology is readily available and can be implemented in a manner that does not require relatively large financial investments and relatively minor or unproven benefits;
- Value added, meaning whether it is unnecessary because similar or better results is likely from a different or simpler configuration.

Alternative 3 fails Reclamation's criteria for feasibility.

#### 1. Alternative 3 does not satisfy the Purpose and Need Statement.

First, we have a concern with how the Purpose and Need Statement is written. Since operational consistency across the SWP and CVP is important, and because the federal permits cover both the CVP and SWP, we are concerned that the Purpose and Needs Statement is written solely in terms of the CVP. (See Draft EIS, p. 0-2.) The project purpose should be that it "satisfies Reclamation's and/or DWR's contractual obligations and agreements," and not as written without a reference to DWR. The E.O. 13990 cannot be met, and the goal of harmonizing operations cannot be achieved if DWR is not also meeting its legal requirements utilizing a consistent operations plan. But even if the purpose is focused on Reclamation's contractual obligations, Alternative 3 absolutely does not meet that purpose and need.

Equally important is the fact that Reclamation and DWR are water project operators, and although there are many project purposes, this consultation is ultimately to ensure compliance with ESA in operating the CVP and SWP. Alternative 3 far exceeds what is required to comply with both the Federal Endangered Species Act, the California Endangered Species Act, and the mitigation requirements of the National Environmental Policy Act and California Environmental Quality Act. Alternative 3 should be rejected because it is clearly inconsistent with nearly all of the applicable water supply contracts that would be impacted by this Alternative, including Reclamation's contracts with the Sacramento River Settlement Contractors and water rights law and Reclamation's contracts and DWR's contracts with water contractors south of the Delta. Alternative 3 may violate Reclamation Law and the Central Valley Project Improvement Act as it prioritizes the environment over both agricultural and municipal uses. Alternative 3 is also contrary to the scope of the Endangered Species Act section 7 consultation because DWR is not seeking

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consultation on the operation of Oroville Reservoir. Alternative 3 is a complete imbalance of project purposes and does not meet the feasibility standard for CVP and SWP operations.

**2. Alternative 3 is incomplete.**

It is not possible to operate Alternative 3 as described. For example, this Alternative includes an unimpaired hydrograph at the upstream reservoirs with no accompanying explanation as to how Reclamation would determine the hydrograph without knowledge of future hydrology. Similarly, it is unclear how Reclamation would determine that the carry-over storage requirements are met when targets include September. The description does not describe whether deliveries to the water contractors above Health and Human Safety levels would be permitted prior to September. If so, based on what predictions and with what level of certainty? As described in more detail below, the description of Alternative 3 is also incomplete because it does not disclose the unimpaired hydrograph and carry-over storage criteria for Oroville Reservoir, even though the description indicates that such criteria will exist and assumed criteria were included in the modeling.

**3. Alternative 3 is not technically and/or economically feasible.**

Alternative 3 is not economically feasible because this Alternative would cost communities south of the Delta billions of dollars and millions of acre-feet of water, all while continuing to charge water agencies and their ratepayers for the ongoing operations and maintenance of facilities, creating major water affordability issues.

The average water supply impact of Alternative 3 to communities south of the Delta is **2.402 MAF**, and **1.206 MAF** in dry and critical years. (Draft EIS, p. F.2-4-31, Table F.2.4-12.) The SWP water supply impact to the South Coast Region M&I uses (Metropolitan Water District) is **666 TAF**. (Draft EIS, p. H-48.) The SWP water supply impact to the Tulare Lake, and South Lahontan (includes Kern County Water Agency) is **493 TAF**. (Draft EIS, pp. H-46 through H-48.) Alternative 3 would also increase groundwater pumping pressures in the Central Valley by **626 TAF**, Draft EIS, p. 6-10, thereby further impacting already existing subsidence concerns, notwithstanding that new groundwater pumping would be limited under SGMA. If additional groundwater pumping is not permitted under SGMA, then the water supply and economic impacts would be even greater than reported in the Draft EIS.

The economic cost of Alternative 3 to Metropolitan Water District's service area for replacement water is **$1,112,874,000**. (Draft EIS, Appendix Q, p. Q-59, Table Q-39). The economic impact on the region that Metropolitan Water District serves includes a decrease of **5,487 jobs, $307,800,000** in lost labor income, and **$1,079,571,510** in lost revenue. (Draft EIS, Appendix Q, p. Q-62.) The fastest growing areas for affordable housing in California are those that pay for and rely on this water as an important component of their portfolio. It should be noted that the vast majority of disadvantaged communities in California reside in areas that rely on the State Water Project for their water supply, further exacerbating the implications of this economically destructive Alternative. The estimated economic cost in the Draft EIS for San Joaquin Valley agriculture (including Kern County Water Agency) is **$1,589,877,127.** (Draft EIS, Appendix Q, p. 91). Alternative 3 would result in the **loss of 14,404 jobs** and **$2,304,265,320** in lost economic output in the San Joaquin Valley, representing a significant impact to the agricultural economy of the San

Joaquin Valley and often disadvantaged communities that rely on it. (Draft EIS, Appendix Q, p. Q-44, Table Q-64).

The potential benefits of Alternative 3 in meeting the Purpose and Need Statement, which includes compliance with law and contract, as well as authorized fish and wildlife project purposes, including the Central Valley Project Improvement Act (CVPIA), are uncertain. As already explained above, Alternative 3 is inconsistent with CVP and SWP compliance with multiple laws and the water supply contracts. While also acknowledging that the CVPIA did not elevate fish and wildlife purpose above agricultural and urban uses, the potential contribution of Alternative 3 to the CVPIA goal of doubling Chinook salmon populations is largely variable, with many results being positive, negative or largely unchanged from baseline in many water years, although upstream critical year survival is somewhat improved. (Appendix O, winter-run Chinook salmon results). The results do not show a consistent significant improvement across all metrics and water-year types and it therefore cannot be concluded that there is any value added.

To the extent that Alternative 3 shows potential sustained benefits to Delta Smelt and Longfin Smelt, the uncertainty associated with those model results should be acknowledged and explained. For example, Longfin Smelt's statistical relationships between the FMWT and winter-spring X2 have been changing, further limiting their statistical significance and predictive utility. Delta Smelt life cycle models also include significant and undisclosed uncertainty and the potential mechanism for any benefit of summer outflow to the species is unknown. The wide range of uncertainty associated with this significant water supply should be disclosed to show the actual tradeoffs between an uncertain and unproven environmental use and the real and calculable economic devastation to the state.

Alternative 3 is technically and economically infeasible and should be rejected from further consideration. The reasons for this conclusion are that Alternative 3 would result in substantial economic and water supply costs, including to the majority of disadvantaged communities in the state; would result in significant increases in groundwater pumping; major components of the Alternative are contrary to law and contract; unproven and uncertain contribution to CVPIA salmon doubling goal; and highly uncertain benefits to native pelagic species.

**B. The Draft EIS' analysis of Alternative 3 is flawed.**

The National Environmental Policy Act ("NEPA") requires that Reclamation describe the relative "significance" of alternatives. Specifically, "the comparison of the proposed action and reasonable alternatives shall be based on their reasonably foreseeable effects and the significance of those effects." (40 CFR §1502.16.) While the SWC fully acknowledges the extensive modeling and comparison of results throughout the Draft EIS, it is often difficult to determine the biological significance of model results, particularly when multiple models are used to assess the same species, same species life stage, same region of the watershed and same category of effect. The magnitude of changes is disclosed, but the "significance" is often difficult to determine. Since the significance is difficult to determine, it is similarly difficult to understand where Reclamation believes that mitigation would be appropriate and the effectiveness of that mitigation.

The discussion of Alternative 3 also fails to satisfy the basic informative purpose of NEPA because the description of the Alternative and disclosure of results are often inconsistent between the main body of the Draft EIS, the modeling of Alternative 3, and the appendices to the Draft EIS.

**1. Alternative 3 description is internally inconsistent and vague.**

The description of Alternative 3 is insufficient to satisfy the basic informational purpose of NEPA. The description of Alternative 3 is inconsistent and vague.

The description of Alternative 3 can be found starting at Draft EIS, p. 3-60, and at Appendix E, Draft Alternatives, p. E-161. Both descriptions of Alternative 3 state in the list of operational priorities that there are carry-over storage requirements at Oroville Reservoir (Priority 4). However, at Draft EIS, p. 3-63, Section 3.5.4 it states that "DWR will address Oroville Dam operations separately," and no carry-over storage requirement and no unimpaired hydrograph pass-through criteria are identified. Nevertheless, the modeling includes carry-over storage requirements for Oroville Reservoir, with an end-of-April target of 2,400 TAF and an end-of-September target of 1,600 TAF, and an unimpaired hydrograph operation that is consistent with the federal reservoirs. (See CalSim file, NGO_Stor_Targets.table.) Alternative 3 modeling is therefore inconsistent with the Alternative 3 description of the operation of Oroville Dam contained in the Draft EIS and inconsistent with the Oroville FERC Settlement Agreement.

The list of Alternative 3 operational priorities is also vague. For example, Alternative 3 operational priority number 2 is to "meet minimum reservoir release and instream flow requirements," but it is unclear which minimum releases and flow requirements are being referenced. It cannot mean minimum flows and requirements contained in D-1641 because meeting D-1641 is operational priority number 1. It does not appear to mean upstream unimpaired flow bypasses and outflow pursuant to Table 3-15 because that is operational priority number 5. We cannot determine exactly what operational priority 2 is referring to.

**2. The Draft EIS misrepresents water quality conditions under Alternative 3.**

The Draft EIS misrepresents the modeling results for Alternative 3, which results in a failure to disclose the significance of the impacts and potential mitigation. For example, the body of the Draft EIS at p. 4-12 states that Alternative 3 salinity at Emmaton is lower than the No Action Alternative. However, the modeling results suggest that the Emmaton standard is exceeded under Alternative 3, likely in multiple years. The Alternative 3 modeling result table in the Draft EIS water quality appendix suggests multiple exceedances of the Emmaton standard because the average salinity in below-normal water years is .639 mS/cm in June. The Emmaton standard is .45 mS/cm until June 20. (Appendix F, Attachment 2-5 at p. F.2.5-136, Table F.2.5-4-6b.) Unless the modeled operations get significantly more saline after June 20, the standard is being exceeded.

**3. The Draft EIS misrepresents impacts to SWP water supply under Alternative 3.**

The reporting and analysis of water supply impacts is a significant concern. For example, the body of the Draft EIS reports that Alternative 3 "would generate no measurable change to average annual SWP M&I deliveries." (Draft EIS, p. 5-3.) As an example, however, the Draft EIS appendices

report that Alternative 3 would reduce South Coast SWP M&I deliveries (Metropolitan Water District's service area) by 666 TAF (342 TAF in dry and critical years). By any measure, this is a significant effect from both an economic and water security perspective for 19 million Californians, which doesn't even include impacts to other communities in the San Francisco Bay Area, Central Coast, and San Joaquin Valley. Likewise, a reduction of 493 TAF to the San Joaquin Valley, including water supplies to the farming communities, represents a significant reduction in available supplies and impacts to groundwater basin management, their agricultural-dependent economies, and national food security. The effect of misrepresentations of Alternative 3 in the body of the Draft EIS results in a failure to discuss the significant impacts of these substantial reductions in SWP water supplies, depriving the public and decision-makers of the true effects of this infeasible Alternative.

4. **The Draft EIS fails to disclose significant Human Health and Safety effects related to Alternative 3.**

The description of Alternative 3 provides a cascade of operations. Before any water can be diverted, even for basic health and safety requirements, Alternative 3 requires that D-1641 be met (Priority 1). However, as explained above, D-1641 is not consistently met under Alternative 3. And because under Alternative 3, no water would be diverted when D-1641 cannot be met, and no TUCP's are allowed, serious Human Health and Safety issues will occur. This Human Health and Safety concern is never disclosed in the Draft EIS because water diversions never go to zero, even when D-1641 is not met. (See, e.g., Draft EIS, Appendix F Attachment 2-3 at p. F.2-3-309, Figure F.2.3-8-13).

Even if there were never a threat to Human Health and Safety water deliveries, the reported 2.402 MAF reduction in the south of Delta water supplies under Alternative 3 would have significant impacts on Human Health and Safety. It is unlikely that alternative supplies can be identified to replace these supplies and the Human Health and Safety of the impacted communities is therefore at risk. The Draft EIS does not disclose this impact. The analysis relies on the reader to comprehensively understand the context within which the magnitude and impact of these water supply reductions would occur. Our water agencies are acutely aware of what these reductions would mean for their service areas and do not agree that these impacts have been accurately described or disclosed.

5. **The Draft EIS fails to identify and describe how Alternative 3 is inconsistent with law and outside of Reclamation's authority.**

NEPA requires a discussion of possible conflicts between alternatives and federal, state, regional, and local plans, policies and controls. (40 CFR §1502.16(a)(5)). While there is a vague acknowledgment that Reclamation may not have the authority to implement Alternative 3, there is no discussion of all of the conflicts that exist in regard to multiple laws, contracts, and policies. Some of these conflicts are identified in the previous discussion related to feasibility and need to be better articulated to understand both the implications of this Alternative and its legal and contractual infeasibility.

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**II. Further clarification of the Proposed Action Alternative 2 should be included.**

The SWC is seeking the following clarifications to ensure consistency across state and federal permits.

**A. Spring outflow after year-2 and without the Healthy Rivers and Landscapes Program.**

The SWC appreciates that the Healthy Rivers and Landscapes Program, including early implementation, is included in Alternative 2. We would appreciate the clarification that Reclamation intends to adopt all modeled versions of Alternative 2 to cover all possible iterations of the implementation of the Healthy Rivers and Landscapes Program. If, for example, Reclamation only adopted Alternative 2 v. 2, we would be concerned that such an approval might be interpreted such that full CVP and SWP implementation of the Healthy Rivers and Landscape Program was not approved. We ask that Reclamation clarify that it is approving Alternative 2 as described at Draft EIS p. 3-54 and not as defined by only one of the Alternative 2 modeling iterations. At the same time, in light of the recent Endangered Species Act listing of Longfin Smelt, if the spring outflow is required by the fishery agencies, regardless of whether we agree on its merit, the SWC is concerned that DWR would be the sole contributor to winter-spring outflow after year-3 if the Healthy Rivers and Landscapes Program is not adopted. We continue to seek consistency in the coordinated operation of the CVP and SWP.

**B. The Summer-Fall Habitat Action should allow for flexible implementation.**

In light of the evolving science related to the definition of fall Delta Smelt habitat and the effect CVP and SWP changes to that habitat, the SWP asks that flexibility in the implementation of the fall X2 action be incorporated into the project description to account for adaptive management, and allow for nimble operations in the future. Currently, Fall X2 is a "hard trigger" in September and October of 80 km in wet and above normal water years. We ask that the project description be changed to provide for flexible implementation and permit a range of X2 between 80 km and 100 km in September and October of wet and above-normal water years. At a minimum, a sensitivity analysis regarding this change could be added to the Draft EIS and Biological Assessment to analyze this request.

We understand that there may be interest in experimenting with new summer flows in the future. In formulating any summer outflow action, it is important to consider the fact that the CVP and SWP already contribute above the natural flows in the summer months, as well as any impacts to other listed species should be considered. To the extent a summer action study is undertaken, we request that the SWC be included in the development and implementation of the study. We have a history of assisting with adaptive management actions, including providing funding for monitoring and synthesis of results. We would also recommend that the Healthy Rivers and Landscapes assets be considered as the initial source of flow for any potential June-August adaptive management studies.

**C. Steelhead protections should account for the population.**

The SWC requests that the Draft EIS description of Alternative 2 be updated to reflect more recent project-related steelhead loss, presumably because of improved species conditions, to ensure that the full extent of our operations is permitted. Specifically, we are requesting that the loss thresholds be increased to 4,637 (90% of 2024 annual loss) with changes to OMR triggers adjusted accordingly. We think this adjustment is important because species losses should account for the then-current population, including increases in population, which may have been contributing to this year's elevated loss. We are also seeking expedited steelhead JPE planning and implementation to inform the entrainment management reflective of then-current population conditions at the export facilities within 4-years.

In the near-term, we further request that within one year, an alternative approach is developed that would use surrogates to indicate when actions should be undertaken, similar to the approach that has been implemented for the management of spring-run Chinook Salmon.

**D. Impacts of Sisk Dam Raise.**

The Biological Assessment provides estimates of the impact of the proposed expansion of Sisk Dam, resulting in increases in CVP diversions between 6 TAF to 130 TAF in 49 of the 123 months analyzed. This caused an increase in the March-May salvage. The SWC requests that if the SWP is required to reduce pumping to mitigate any increased salvage, the water supply impact is addressed appropriately through coordination with the SWP.

**E. Assumed change to COA sharing for Shasta Reservoir Operations.**

As part of the temperature management action and agreement with the Sacramento Settlement Contractors, the modeling assumes a change in the COA implementation. We object to this change. The presumption that there will be an actual reduction in the in-basin use is not supported based on the recent drought when Sacramento River Settlement Contractors deliveries were curtailed significantly. One of the reasons for the 2018 Amendment to COA was to rebalance the sharing of regulatory responsibility when Reclamation is having temperature compliance challenges in drier water year types. Now, outside of the COA process, there is an assumption that the SWP would be subject to another water supply impact in addition to the 2018 amendment. We object to any informal agreement that would rebalance regulatory obligations outside of COA. There should be no changes to COA outside of the formal process where multiple changes and disparities would be considered collectively in a single, consistent review process.

**F. Further clarification of Reclamation's participation in the Sites Reservoir should be included.**

The programmatic discussion of the Sites Reservoir Project should be clarified to make the proper distinctions between CVP and/or SWP operations and the proposed operations of Sites Reservoir. We would appreciate clarification that Sites Reservoir is not a CVP nor a SWP facility, and that Sites water is not "project water." It would be helpful to explain that the CVP may have a participating share in the Sites project and that it is anticipated that Sites water would be exported through the CVP and SWP facilities during the existing water transfer window. A reference to the

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recent settlement with the SWC and DWR would also be appropriate to clarify that Sites Reservoir would hold water rights that are junior to the CVP and SWP and that Sites diversions are prohibited from interfering with CVP and SWP regulatory compliance.

The SWC appreciates the significant modeling and analysis that Reclamation included in its Draft EIS and its adherence to its schedule. We hope that Reclamation will continue with its stated intention to adopt Alternative 2, with our requested clarifications. If you have any questions, please contact Mr. Chandra Chilmakuri at 916-562-2583.

Sincerely,

Jennifer Pierre
General Manager

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VI.

September 9, 2024

**VIA EMAIL**

U.S. Bureau of Reclamation
Attention: Bay-Delta Office
801 I Street, Suite 140
Sacramento, CA 95814-2536

Email: sha-MPR-BDO@usbr.gov

Re: Draft Environmental Impact Statement for the Long-Term Operations of the Central Valley Project

Dear Ms. Pinero:

Thank you for the opportunity to comment on the U.S. Bureau of Reclamation's ("Reclamation") Draft Environmental Impact Statement for the Long-Term Operations of the Central Valley Project, dated July 2024 ("Draft EIS"). My Family has been farming in Newman California since 1968, I am a third generation farmer and very concerned for our Family Farm's future. As a South-of-Delta Landowner who receives water supplies dependent on the operation of the Central Valley Project (CVP), decisions currently being made and to be made in the future regarding those operations are of utmost concern to my family farm. Water supply reliability for our region of the CVP has decreased on average by over 50% over the last 30+ years and, it appears, will only further erode if the current "preferred" alternative is implemented. This certainly will impact the ability of all South-of-Delta farmers served by the CVP to remain financially viable, which would likely mean less safe and abundant food supply produced by California to feed our nation and the world.

Information being circulated regarding the proposed preferred alternative indicates that not only does the alternative fail to strike an appropriate balance between species protection efforts and flexible operations of the State and Federal Water projects, it may also violate multiple existing laws, including the Central Valley Project Improvement Act. The alternative also proposes voluntary actions to be taken by Reclamation to coordinate operations with the State Water Project in ways that essentially apply requirements specified only for the State Water Project to the CVP, contrary to existing law, and possibly in violation of Reclamation's obligation to not impose conditions of shortage under existing CVP contracts, including the contract held by the district from which my Lands receive service, the Del Puerto Water District.

As a farmer who must adaptively manage my farm to account for changes in climate, laws, regulations and the agricultural economy, it is extremely frustrating to observe the current process,

which continues to advance the failed strategy of the last 30 years of using flows only to address the multiple stressors, including predation, non-native invasive species, and climate change, to name a few, that are impacting the Delta ecosystem and the species that call the Delta home. As we do on the farm, Reclamation must modify its approach and implement scientifically based adaptive management to improve water supply reliability and protect the environment.

Similar to previous updates to the environmental documentation that governs operations of the CVP, along with other laws & regulations, the proposed preferred alternative has disproportionate impacts on the westside of the San Joaquin Valley, a region that is historically economically underdeveloped and least able to bear the burden of the water supply reductions. This makes no sense as a matter of national security, as this same region is responsible for producing much of our nation's food supply.

In closing, the Proposed Action should be modified when Reclamation issues the Final Environmental Impact Statement to strike the appropriate balance between flexible project operations and species protection required by law, thereby ensuring the continued viability of California's small family farmers.

Respectfully submitted,

Murphy A. Sabatino, Jr.



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VI.

September 9, 2024

**VIA EMAIL**

U.S. Bureau of Reclamation
Attention: Bay-Delta Office
801 I Street, Suite 140
Sacramento, CA 95814-2536

Email: sha-MPR-BDO@usbr.gov

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As a farmer who must adaptively manage my farm to account for changes in climate, laws, regulations and the agricultural economy, it is extremely frustrating to observe the current process, which continues to advance the failed strategy of the last 30 years of using flows only to address the multiple stressors, including predation, non-native invasive species, and climate change, to name a few, that are impacting the Delta ecosystem and the species that call the Delta home. I am particularly disappointed that a non native species such as striped bass which preys

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upon the species we are trying to protect is actually considered an indicator species and worthy of protection. As a former fisheries biologist I find the science and logic misguided. As we do on the farm, Reclamation must modify its approach and implement scientifically based adaptive management to improve water supply reliability and protect the environment. A balanced approach between environment, agriculture and urban communities would have a better outcome. Some sacrifice by all is necessary but I feel like agriculture bears the brunt time after time. Family farms will be the first to go extinct, mark my word.

In regards to adaption I find it contradictory that the state and federal government would invest funds in so many programs to help farmers improve water efficiency and groundwater recharge only to turn around and take water supplies away so the opportunity to achieve those savings never comes to fruition. It seems wasteful and is actually quite demoralizing to people like me. We have invested everything we have, our future, with the help of a few federal and state grants in reinventing our farm to capture more carbon, build healthy soils, recharge more water in wet years and use water more efficiently during dry years. The hope was to be able to access those savings when drought comes and supplies are insufficient, but so far every time we have a wet year and I farm conservatively the water savings seem to vanish or end up in someone else's pond. So I ask, why did I bother to save? Why do you think farmers say "Use it or Lose it"? And that is exactly the attitude you don't want farmers to take. One thing we farmers understand is working towards a goal, but if you keep taking the reward away every time the effort is made you are just going to get a bunch of pissed off uncooperative farmers. Plans that impact everyone should engage and be inclusive of everyone. Sacrifices and benefits should be dispersed across the board. This is the attitude required for success.

Similar to previous updates to the environmental documentation that governs operations of the CVP, along with other laws & regulations, the proposed preferred alternative has disproportionate impacts on the westside of the San Joaquin Valley, a region that is historically economically underdeveloped and least able to bear the burden of the water supply reductions. This makes no sense as a matter of national security, as this same region is responsible for producing much of our nation's food supply.

In closing, the Proposed Action should be modified when Reclamation issues the Final Environmental Impact Statement to strike the appropriate balance between flexible project operations and species protection required by law, thereby ensuring the continued viability of California's small family farmers.

Respectfully submitted,
Christine Gemperle, Gemperle Orchards

Christine Gemperle



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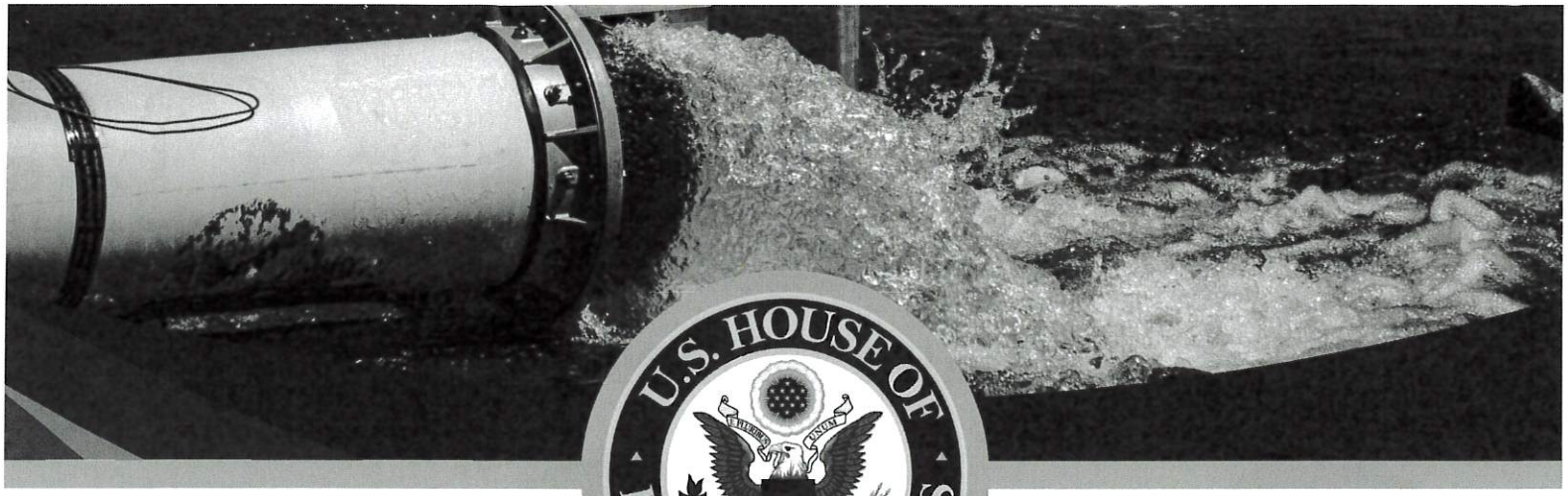

VI.

The public is cordially invited to attend a field hearing hosted by the

## HOUSE NATURAL RESOURCES SUBCOMMITTEE ON WATER, WILDLIFE & FISHERIES

# WATER ABUNDANCE:

## Opportunities and Challenges in California

Join Congressman John Duarte (CA-13) and the House Natural Resources Subcommittee on Water, Wildlife and Fisheries for a field hearing focused on California's water supply, the challenges posed by government regulations, and water's connection to America's food security.

## FRIDAY, SEPTEMBER 6, 2024

## HEARING STARTS AT 10:30AM

## HOTEL MISSION DE ORO

13070 S. Highway 33, Santa Nella, CA 95322

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For more information, call Congressman Duarte's Turlock District Office at **(209) 226-6880.**

# WATER ABUNDANCE:

## Opportunities and Challenges in California

**FRIDAY, SEPTEMBER 6, 2024**
**HOTEL MISSION DE ORO**

## FIELD HEARING WITNESSES

**ALLISON FEBBO**
*General Manager*
Westlands Water District

**JASON PHILLIPS**
*Chief Executive Officer*
Friant Water Authority

**WILLIAM BOURDEAU**
*Founder & CEO*
Bourdeau Farms, LLC

**JOSH WEIMER**
*Director of External Affairs*
Turlock Irrigation District

**JOHN HERRICK**
*Counsel & Manager*
South Delta Water Agency

**RONDA LUCAS, Esq.**
Lucas Law

**U.S. BUREAU OF RECLAMATION**
*TBD—(Invited)*

**U.S. FISH & WILDLIFE SERVICE**
*TBD—(Invited)*

**NATIONAL MARINE FISHERIES SERVICE**
*TBD—(Invited)*

# U.S. House of Representatives
## Committee on Natural Resources
## Washington, DC 20515

**SUBCOMMITTEE ON WATER, WILDLIFE AND FISHERIES**
**OVERSIGHT HEARING**
Hotel Mission De Oro in the Ponce de Leon Room
13070 S Highway 33 Santa Nella, CA 95322
September 6, 2024
10:30 a.m. PDT

## AGENDA

*"Water Abundance: Opportunities and Challenges in California"*

## WITNESSES

**Mr. Jason Phillips**
Chief Executive Officer
Friant Water Authority
Lindsay, California

**Ms. Allison Febbo**
General Manager
Westlands Water District
Fresno, California

**Ms. Ronda Lucas**
Attorney
Lucas Law
Hilmar, California

**Mr. William Bourdeau**
Founder and CEO
Bourdeau Farms
Coalinga, California

**Mr. John Herrick**
General Counsel and Manager
South Delta Water Agency
Lodi, California

**Mr. Josh Weimer**
Director of External Affairs
Turlock Irrigation District
Turlock, California

**The Honorable Camille Touton**
Commissioner
Bureau of Reclamation
Washington, D.C.
*[Invited; Declined to Testify]*

**The Honorable Martha Williams**
Director
U.S. Fish and Wildlife
Washington, D.C.
*[Invited; Declined to Testify]*

**The Honorable Richard Spinrad**
Under Secretary of Commerce for Oceans and Atmosphere & NOAA Administrator
Department of Commerce
Washington, D.C.
*[Invited; Declined to Testify]*

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VI.

**Testimony of William Bourdeau**
**Farmer, San Joaquin Valley**
**Before the House Natural Resources Subcommittee on Water, Wildlife & Fisheries**
**September 6, 2024**

Good morning, Chairman, Ranking Member, and distinguished members of the subcommittee. My name is William Bourdeau. I am a farmer on the Westside of the San Joaquin Valley, a United States Marine Corps veteran, a Water District Director, a former Coalinga City Council member, and concerned citizen. I am here today to address the critical challenges posed by current water management practices, not just on California farmers, but on the broader community and nation. This issue transcends agriculture—it affects families, public health, and the American dream.

Agriculture is more than just an industry in the San Joaquin Valley; it is the lifeblood of our communities, providing jobs, supporting local businesses, and sustaining families. The Bureau of Reclamation's delays and overly conservative approach to water allocations this year have had far-reaching and devastating consequences. Despite historic rainfall and snowpack the Bureau's allocation announcements failed to account for this abundance, issuing a minimal allocation that did not reflect the actual conditions. By the time a modest increase was announced, it was too late for growers to adjust their plans for the year.

These delays impact not just farmers, but the entire agricultural supply chain, including buyers and processors who need reliable water supply forecasts to secure their operations. For example, garlic packers plant from September to October for harvest the following year, and tomato processors finalize commitments by January for the upcoming summer. When water announcements are delayed until March or later, these stakeholders cannot adjust, resulting in lost contracts, idle equipment, and job losses. The ripple effect extends throughout our communities, threatening the stability of local economies that depend on agriculture.

The impact of inadequate water supply extends far beyond the fields—it hits our communities at their core. As farms struggle, local economies suffer. The reduction in agricultural activity means fewer jobs and less income circulating in the community, which directly affects local businesses, schools, and public services. We are seeing increased respiratory illnesses due to poor air quality, exacerbated by dust from fallowed fields and the lack of healthy crops that would otherwise help clean the air. This places additional strain on already overburdened healthcare facilities, stretching community resources to their limits.

As public safety budgets shrink and essential community services are cut, the social fabric of our communities begins to fray. Families who work the land face financial uncertainty, leading to stress, deteriorating mental health, and a loss of hope. This collapse of community is not just an economic issue—it's a human crisis. The erosion of the American dream is felt most acutely by those who have worked hard to achieve it, only to see it slipping away due to factors beyond their control.

The scarcity of water caused by mismanagement is not just a problem for farmers—it's a problem for everyone. When farms cannot produce at full capacity, the supply of domestically grown food

decreases, leading to higher food prices for all Americans. This man-made water scarcity artificially inflates the cost of basic food items, disproportionately affecting low-income families and the most vulnerable members of our society. It forces consumers to pay more at the grocery store, compounding financial stress on households already struggling with inflation and economic uncertainty.

Moreover, the increased dependence on imported food due to reduced domestic production is not only a threat to our national security but also undermines our self-sufficiency. It makes us vulnerable to global supply chain disruptions and external market forces, further driving up prices and decreasing the availability of fresh, nutritious food for American families.

The reality is that we have the potential for water abundance. Proper management and transparent, timely water allocations could provide ample supply to support our agricultural needs and sustain our communities. The Bureau of Reclamation must be held accountable for ensuring that water allocations are based on accurate, up-to-date data on precipitation, snowpack, and storage levels, rather than defaulting to overly conservative approaches that hurt those who depend on this vital resource.

We must move away from the narrative of scarcity and toward a vision of abundance, where the needs of farmers, communities, and consumers are met through thoughtful and proactive water management. This is not just about securing water for crops—it's about securing a future where families can thrive, communities can grow, and the American dream remains within reach for all.

In closing, I urge this committee to recognize that the challenges we face with water management are not just about agriculture—they are about people, communities, and our collective future. We need a commitment to responsible water management that ensures a reliable and abundant supply for all who depend on it. We have the resources and the opportunity to turn this around, to restore hope and opportunity to the San Joaquin Valley and beyond. Thank you for the opportunity to testify today, and I look forward to working together to protect our farms, our communities, and the American dream.

Thank you.

VI.

**Testimony of Ronda Lucas, Water and Environmental Attorney, to the**

**United States House of Representatives**

**House Committee on Natural Resources,**

**Subcommittee on Water, Wildlife and Fisheries**

**Oversight Field Hearing Regarding**

**"Water Abundance: Opportunities and Challenges in California"**

**September 6, 2024; Santa Nella, California**

Good morning, Chairman Bentz, Ranking Member Huffman, Congressman Duarte, and esteemed members of the Committee. Thank you for providing me with the opportunity to testify on the opportunities and challenges in California concerning water abundance. My name is Ronda Lucas, and I am an attorney with decades of experience in California water and environmental issues. This career path, while rewarding, frankly, was not the one I envisioned. First and foremost, I am a California farmer's daughter, granddaughter and great-grandaughter who wanted to return home from college and work alongside three generations of my family farming in California's Sacramento Valley.

You see, more than a century ago, my great-grandparents emigrated to California and began as laborers on a small dairy. Through hard work, they were able to buy that dairy and begin writing their American dream. As regulations in the dairy industry began to squeeze dairies out of existence, we converted our family farm to growing other crops and sold the cows. Over time, my grandfather and then father were able to expand our land to ensure my siblings, my cousins and future generations would be able to continue farming. However, reality interfered in the form of numerous fish listings under the Endangered Species Act ("ESA") spanning the early to mid-1990s resulting in our water being shut off and altering my dream and career path.

Rather than coming home to farm alongside my dad, grandfather and countless other cousins, in order to ensure our farm and my hometown, like hundreds if not thousands of other farms, ranches, and entire communities might have a hope of continuing, I traded a tractor for a law degree. I could do more learning the law than farming the land to ensure my farm, my family, my friends and neighbors and my small rural community would have sufficient water to survive.

Sadly, I am not unique or special. My story is the story of too many in this country whose history, dreams, heritage and livelihoods have been built around a life calling only to have these legacies threatened unnecessarily by unelected bureaucrats who choose water scarcity and permanent drought conditions that wreak havoc but produce little to no actual improvements to fish populations or the environment. Last week, I dropped my youngest off to college and, sadly, those same fish are still being used as an excuse to impose water shortages on communities throughout this state and nation without foreseeable recovery or any measurable benefit to either the communities or the environment.

We must do better. We must use science to focus on actual recovery of these fish and all listed species so that neither my children nor any other future generations are prevented from feeding and clothing America or pursuing their American dream.

On Dec. 28, 1973, Congress passed, and President Nixon signed, with little fanfare, legislation that was intended to protect imperiled species from becoming extinct. At the time, neither Congress nor the general public understood that this relatively simple concept would spark the third rail of American politics. As we approach the 51st birthday of the federal Endangered Species Act, one thing is perfectly clear --this well-intentioned act is failing miserably in achieving Congress' main objective of recovering species. Unfortunately, very little is being done to fix this quagmire because extreme political agendas and lifestyle demagoguery are more important to special interest groups and bureaucratic power centers than environmental restoration and saving species.

Today, many measure success under the ESA in terms of the number of species listed. This defies common sense. If society has so depleted a species it is on the verge of extinction, we have failed miserably. The 1973 Congress recognized this and placed emphasis on recovering species rather than on listing species. The listing process is merely the first step. The true work begins when we collectively work toward improving species' status to the point they are no longer in danger. But, as the ESA is currently implemented, the bureaucrats have neither the time, incentive, nor other resources to get beyond this first step and actually recovery and therefore remove species from the ESA. The perverse incentive currently in place in the ESA for bureaucracies is listing equals power and recovery equals a loss of power and control.

Instead of trying to achieve the true purpose of the Act, certain sectors of society spend their resources suing the U.S. Fish and Wildlife Service and National Oceanic and Atmospheric Administration Fisheries and obtaining millions in tax-payer payouts in the form of "attorneys' fees" that are then used to continue the litigation cycle. In the end, species are listed, not based on the best available scientific information, but based on a court order or settlement agreement. This is not productive and runs counter to Congress's intent that government's actions under the ESA be guided by and based upon science. The National Academy of Sciences, in the early 2000s brought this problem into clear focus when it commented on the "need to reconcile the ESA's legal framework with its scientific foundations."

The ESA requires the government to make decisions regarding species in accordance with very strict deadlines. The ESA also requires the government to make its decisions based on the "best commercial and scientific data available." This structure does not allow the time necessary to make decisions guided by true science. According to the National Academy of Sciences, this creates a situation where the government can make decisions under the ESA that "satisfy the demands of the ESA with an analysis that would not satisfy the demands of scientific review for publication or other peer-reviewed processes common in modern science."

As we mark the ESA's half century of existence, hopefully the time has finally come to have an honest discussion. Leading the discussion, Congress needs to decide which is more important- having decisions based on true scientific processes, or having decisions based on arbitrary deadlines. The last 50 years have taught us we cannot have both.

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Unfortunately, because the ESA is now more about political posturing than protecting and preserving species, any attempt to require true scientific processes in decision making and to shift the government's emphasis to recovering species will be met with strong resistance. Never mind we are not saving species as the Act is currently implemented. We are merely listing them. In 50 years, more than 1,700 species have been listed and less than 2% have been recovered.

As Albert Einstein noted, "[w]e cannot solve our problems with the same thinking we used when we created them." Yet, in the ESA context, this approach is exactly what we have been doing, and with dire consequences to both people and species. In the Columbia River Basin, due to the listing of several species of salmon and steelhead under the ESA, for decades bureaucrats have enacted numerous changes and resulting decreases in available water and energy in the name of ESA requirements ostensibly to "recover" the "wild" salmon and steelhead. Nearly 4 decades and more than $9 billion dollars have been invested in federal (taxpayer) monies in this effort. Energy production was not allowed, and water was sent out to the ocean unused, with very real costs to the individuals, businesses and communities in the Columbia River Basin and beyond. Drought and rolling blackouts, increased energy costs, loss of jobs and increase in daily stress in the families and communities directly impacted are just some examples. In 2023, a study was finally undertaken to measure the results of this costly undertaking.[1] The study observed the impact of the restoration efforts "remains poorly understood; many observers, including the federal courts, have long been concerned by the lack of evidence of recovery."[2] "Despite several decades of federal agency actions in response to these requirements, many observers including local and state governments, community groups, and stakeholders, have been stymied by the paucity of evidence of improvements in fish populations despite these actions and high levels of expenditures."[3] For more than forty years, the efforts continued without study, without accountability, without attempting a different approach in spite of this "paucity of evidence" and in the face of real, devastating impacts to people, communities, and other environments. In 2023, the salmon and steelhead are no closer to recovery, but the study concluded, '[t]he aim of our study has been to look for evidence of the return on investment for the $9 billion restoration spending in the C[olumbia] R[iver] B[asin] over the last four decades. . . .[W]e find no empirical evidence of an increase in wild fish abundance associated with restoration spending."[4] In spite of these facts, we are continuing these failed policies, removing dams, ignoring consequences to people, and allowing bureaucrats to impose water and electricity shortages while wasting billions in our tax dollars with zero benefit.

In this area, we have a similar experience. Less than a decade ago, this area was brought to its knees because bureaucrats decided to use biological opinions to impose drought conditions. The nightly news was filled with stories of food banks being inundated with families simply trying to get enough to eat because every facet of life was facing poverty, unemployment, and scarcity. The instances of asthma, particularly for children and the elderly, and other respiratory illnesses exploded as the water disappeared. The regulatory drought imposed in the name of ESA created

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[1] William Jaeger, Mark Scheuerell, *Return(s) on investment: Restoration spending in the Columbia River Basin and increased abundance of salmon and steelhead*, (July 28, 2023), https://doi.org/10.1371/journal.pone.0289246).
[2] *Id.* at abstract.
[3] *Id.* at 3.
[4] *Id.* at 10.

numerous violations of the Clean Air Act, and more importantly, children, the old and the young all suffered with some requiring hospitalization. Instances of domestic violence, petty crime, divorce, depression, anxiety and in some dire instances suicide increased. As the water flowed not into the fields and communities to sustain life, but out to the ocean on the off chance it might somehow improve salmon and steelhead, employment died, dreams died, communities died, and hope died. And, the fish **did not** demonstrably improve. We cannot repeat our past mistakes. We cannot doom ourselves to our failed history by allowing bureaucrats to choose the imposition of water scarcity. Local governments, scientists, the communities where we all live and work and the environments where these species reside all deserve Congress and the government to choose water abundance.

By any reasonable measure, the government has failed to achieve Congress' goal. Albert Einstein also observed "God doesn't play dice with the universe." Bureaucrats should not either. Rather than waste another half century and hundreds of billions of dollars while decimating lives, neighborhoods, communities and species, Congress must exhibit true leadership and recover the ESA from its current political quagmire. America deserves an ESA similar to the one Congress envisioned 51 years ago-an ESA based on common sense, guided by true science and protective of those species that truly warrant protection. America also needs to measure success by the number of species recovered rather than the number of species listed.

**Josh Weimer**
**Director of External Affairs**
**Turlock Irrigation District**

**Testimony Before the United States House of Representatives**
**Committee on Natural Resources**
**Subcommittee on Water, Wildlife and Fisheries**

**Oversight Field Hearing on**
***Water Abundance: Opportunities and Challenges in California***

***Hotel Mission De Oro***
***13070 S Highway 33 Santa Nella, CA***

**September 6, 2024**

Chairman Bentz and Members of the Subcommittee:

My name is Josh Weimer, and I am the Director of External Affairs for Turlock Irrigation District (TID) in California's San Joaquin Valley. TID was the first publicly-owned irrigation district in the state of California. Today it is one of only four in California that also provides electric retail energy directly to homes, farms, and businesses. Organized under the Wright Act, the District operates under the provisions of the California Water Code as a special district. TID is governed by a five-member, locally-elected Board of Directors.

TID delivers irrigation water through over 250 miles of a gravity-fed canal system that irrigates approximately 150,000 acres of farmland. In addition, TID owns and operates an integrated and diverse electric generation, transmission and distribution system that provides power to a population of 240,000 within a 662 square-mile area. TID is one of eight Balancing Authorities in California and operates independently within the Western United States power grid. A Balancing Authority performs a balancing function in which customers' usage and resources are matched on a moment-by-moment basis.

Thank you for the invitation to testify today on TID's industry-leading reservoir and watershed management activities. Our watershed, run-off, and hydrology are changing and we must adapt how we operate our system to account for these changes. New and improved infrastructure are part of the solution, but embracing new technology, technology that doesn't require any additional concrete, is the first low hanging fruit that TID has focused on. Maximizing the District's current storage and diversion facilities and our unique ability to operate the system ourselves versus having state or federal parameters, allow us to adapt to the challenges facing California water supplies.

Through private, state and federal partnerships, TID has been able to pioneer the use of innovative technologies through its Airborne Snow Observatory (ASO) program and Forecast-

Informed Reservoir Operations (FIRO) program, both of which support the enhancement of TID's water management operations. These tools are then inputted into its own in-house hydrologic model. TID's Hydrocomp Forecasting and Analysis Model (HFAM) is one of the only hourly and physically based models used for water operations in the state of California. The combination of results from these programs have proven accurate within a 2 percent margin. As discussed further below, using these technologies and data increases drought resilience, improves flood protection for our communities, and proved invaluable when operating the Don Pedro Dam and Powerhouse during the 2023 water year.

## TID Background

TID has historic water rights dating back to the early 1870's and most of the water it supplies to its growers is diverted from the Tuolumne River. TID partnered with the neighboring Modesto Irrigation District (MID) ("the Districts"), and built La Grange Dam in 1893 to divert water out of the river and into the Districts' respective canals. The Districts joined forces again in the 1920s to build the first Don Pedro Dam. With a small storage capacity of 289,000 acre-feet, the dam held only enough water to accommodate growers' irrigation needs for a single growing season and generating carbon-free hydroelectric power for customers in the San Joaquin Valley of California. Don Pedro propelled TID to become a public power agency.

After numerous dry winters, the Districts decided to replace the original dam with a much larger one to store the water necessary to bridge multiple years of drought. The New Don Pedro Project was completed in 1971 and has storage capacity of 2,030,000 acre-feet, seven times larger than the original. TID is the majority-owner and operator of the Don Pedro Project, by virtue of the Districts' historic sharing agreement based on acreage served within each district, TID's share is 68.46%, while MID's share is 31.54%. The dam has many benefits that range from irrigation water storage, flood control, recreation, and environmental benefits, as well as power generation. The Don Pedro powerhouse has the capacity to provide a total of 203 MW of hydroelectric power.

Although TID operates Don Pedro as a water-first facility, the collaborative nature of TID's water and energy teams has provided the flexibility to maximize releases to generate hydropower and address the immediate needs of its customers' energy demands year-round. Don Pedro makes up approximately 20 percent of TID's energy portfolio, providing clean, carbon-free energy.

The Tuolumne River is TID and MID's primary source of water, replenished annually by the spring snowmelt in the 1,884 square-mile Tuolumne River watershed originating at Mt. Lyell in Yosemite National Park. Water for irrigation and hydroelectric power production is stored at the Don Pedro Reservoir about 50 miles east of Turlock in the Sierra Nevada foothills near the historic gold rush era town of La Grange. The average annual runoff is 1,893,042 acre-feet.

## Necessity Has Driven Innovation

Over the course of TID's 137-year history, one principle has remained at the forefront, necessity drives innovation. Our community certainly understood this in 1887 when a vote of the people brought irrigation to the valley, and numerous times over the following decades when the District

decided to build its own water system and take our communities' destiny into our own hands. Unprecedented metrological events 25 years ago were one of those key moments that set TID on a course of trailblazing reservoir management.

The massive flooding events across Northern California in early 1997 caught all reservoirs operators off guard. At the time, the technology and forecasting didn't exist to operate a river system. Rather, operators were reactionary and passive to what the inflow gages showed after the fact. The Tuolumne River channel below Don Pedro is very narrow and only able to pass 10,000 cfs without flooding in Modesto. The unique hydrology surrounding the 1997 events led to the opening of the control spillway gates for the first time since construction was completed in 1971. In flow into Don Pedro peaked at over 140,088 cfs with an hourly peak over 180,000cfs which caused the elevation to rise so quickly that water ended going over the uncontrolled spillway.

These types of experiences were common during 1997, but what was uncommon was the response and action taken following the flooding. TID decided at that time that a lack of forecasting, situational intelligence, and specific Tuolumne River watershed modeling must be addressed to ensure safety and stewardship of the Tuolumne River and our downstream communities.

In 1998, TID knew what information was needed, and set out to find the experts to create a Tuolumne-specific model to inform reservoir operations. Almost 10 years prior, a TID employee took a two-week hydrology class taught by experts at Stanford University. During that time, he was introduced to Dr. Norm Crawford who had been researching hydrological simulation programing since he developed the Stanford Watershed Model in the 1960s. TID budgeted $200,000 in 1998, and sought out Dr. Crawford to develop a Tuolumne-specific model. As with all models, the initial development cost is only one portion of the overall investment. Annual development and calibration is what takes these tools from interesting models, to useful operational products, over the course of 25 years the average annual budget has been approximately $50,000.

**HFAM**

HFAM is a hydrologic simulation program that determines watershed conditions and reservoir inflow based on current and forecasted meteorology. The Tuolumne HFAM model runs hourly from a 93-year meteorological database and represents the watershed using 827 land segments, 133 stream channels, 8 irrigation canals and 13 lakes and reservoirs, incorporating physical factors (soil and vegetation types) and then bringing in inputs (precipitation, temperature, wind, solar radiation) which is all used to output information on soil moisture, snowpack and runoff within the watershed. This advanced model offers a 16-day forecast to make informed decisions for flood control and water supply during dry years. Results have proven accurate within a 2 percent margin.

HFAM evolved from research at Stanford University in the 1960s (Stanford Watershed Model), and development continued in the 70s and 80s (Hydrological Simulation Program – FORTRAN) and to the present supported by numerous organizations and state and federal agencies.

HFAM includes Systematic Operation Analysis for Reservoirs (SOAR), reservoir operations code that maximizes the value of Don Pedro by balancing the competing use of the reservoir for flood control and for irrigation and hydropower water supply. SOAR can be used to analyze operations under current conditions or to assess impacts of climate change or the benefits of additional storage options such as additional reservoir storage, managed groundwater aquifer recharge, or connections with other reservoirs.

## ASO

In 2012, TID has partnered with the NASA JPL and the United States Department of Agriculture (USDA) to bring snow survey measurement, runoff forecasting, and reservoir operations into the 21st century with the Airborne Snow Observatory (ASO) program.

ASO provides a precise measurement of depth and water content for every square meter of snow in the Tuolumne River watershed, and when combined with conventional snow surveys, provides a near-perfect picture of snow water content. The ASO technology measures snow depth and water content using an airplane-mounted light detection and ranging (LiDAR) technology instrument and an imaging spectrometer. The aircraft flies over and scans mountain basins to completely and accurately measure snowpack across the entire watershed.

California pioneered snow surveys in 1929 with a water supply forecasting program that relied on measurements of snow in select locations to estimate spring and summer runoff into reservoirs across the state. Conventional snow survey methods, although still valuable, have not been revisited until recently with NASA's ASO program. They rely heavily on professional judgment and extrapolation with a large margin of error because they use a minimal number of locations to estimate snowpack over tens of thousands of square-miles of watershed.

Having the ASO data that has been proven within 97 percent accurate enables TID to better manage operations, including the use of hydro generation at Don Pedro Power Plant, and benefits water supply, flood control, and environmental impacts.

The Tuolumne River Watershed is over 1,800 square-miles, but there are currently only 17 points of measurement in the entire watershed – equating to one site for every 88 miles. The points consist of remote measurement sites and snow pillows that measure the weight of snowpack and transfer that into a water equivalency.

Highly precise and accurate data from the ASO program can allow for better informed decisions with managing precious water supply. This data allows for earlier and larger groundwater recharge deliveries in wet years, avoid losses from overly conservative forecasts in dry years, more balance among competing demands at reservoirs during the refill season, and earlier and more confident decisions for allocation and managing environmental flows.

## Scripps

Owning and operating its own water system has allowed TID water operators to proactively seek out new practices that it believes will benefit its customers and has given it more flexibility to test and refine its water operations. Years ago, TID's Chief Hydrologist discovered the great

work that the Center for Western Weather and Water Extremes, Scripps Institution of Oceanography at UC San Diego was doing on atmospheric river research and started to incorporate that technology into TID's water operations.

Now known as the Forecast Informed Reservoir Operations (FIRO), this technology observes atmospheric rivers using a variety of methods including satellites, ocean tracking buoys and by using an aircraft to fly directly into an oncoming storm before landfall. Data turns into models which yield real-time data made available online, and reservoir operators throughout the West have the ability to use the data to inform their operations. Using this data has proven invaluable to TID operations, which has improved public safety, and provides tremendous value to our customers.

TID has become a founding member of Scripps' Water Affiliates Group and is excited to enhance its relationship with Scripps and continue using the latest technology to inform our water operations.

## Results of Multi-decade Investments in Technology

Regardless of the water year type, drought or flood, TID continues to see the daily benefits of the investments made over the past 25 years.

In 2017, the wettest year on record for TID, ASO began providing images of every square-meter of the watershed. The Department of Water Resources (DWR) and California Nevada River Forecast Center (CNRFC) increased their snowpack runoff forecasts, which caused TID to increase the Tuolumne River to near-maximum channel capacity to accommodate the runoff. However, once TID received the ASO data, which showed less runoff than anticipated, we had the confidence to decrease releases from Don Pedro Reservoir.

The following year, in 2018, data allowed TID to get a deviation from the U.S. Army Corps of Engineers that saved approximately 150,000 acre-feet of water. The deviation allowed TID to encroach into the flood control space in Don Pedro and forgo vacating the water which the District would have historically been required to do to prepare for unexpected flooding. With the investment in modeling and real-time data collection, TID was able to show that the District knew exactly how much snow was in the watershed and that there was no precipitation coming in the 16 day forecast that would threaten public safety.

Importantly, the positive results of TID's advanced water operations has also served to prove the cost effectiveness of investments in technology and data, increased the confidence to use model outputs to make consequential decisions on reservoir operations, and drive planning for infrastructure development needed for the future.

## 2023 Advanced Reservoir Operations

The 2023 Water Year ended up as the third wettest year on record with 4,020,029 acre-feet of runoff, however it did not start off that way. At the end of December, the District was preparing for a 4th year of drought, but that changed over the course of one day. We went from drought planning to flood planning within the course of 24 hours. These are the realities of how water

managers must be constantly ready for any conditions and they must possess the necessary tools and resources to be confident to take early action.

Coming off the third driest three-years on record, Don Pedro Reservoir was half full, with roughly 1 million acre-feet of storage space available. Most water operators in that situation decided to fill their reservoirs and then deal with any potential issues later. TID took a different approach.

Due to the snowpack measurements and the Scripps information, we were able to run over 100 simulations in HFAM that showed that months later there would be more water than we would be able to store. The decision was then made to start making pre-flood releases in early January with over 800,000 acre-feet of storage space available. Don Pedro has 340,000 acre-feet of flood control space, but we have started to operate the reservoir utilizing the entire storage capacity for flood control.

By starting excess releases in January, the Tuolumne was able to vacate water while river levels in the San Joaquin were low. Other water operators were holding on to all of the water, desperate to recover from 3 years of drought.

Over the course of the water year, even with a 10,000 cfs limit in the river, TID was able to pass over 2 million acre-feet of water through Don Pedro. The District held maximum channel releases for over 70 consecutive days. This is even more impressive when you know that the Tuolumne River has an uncontrolled creek, Dry Creek, which feeds into the main stem in the city of Modesto. Water released from Don Pedro takes 20 hours to arrive at the confluence of Dry Creek, this requires TID hydrologists to not only take into consideration the elevation of Don Pedro and inflows into the reservoir, but they must factor in local precipitation and adjust releases a day prior to that water arriving in Modesto where flood stage is measured.

At the same time, our Power team was facing historical hikes in natural gas prices, which would undoubtedly impact the cost to provide power to our electric customers. The early releases allowed us to not just evacuate water in a consistent manner to provide room for flood control, but to also maximize the use of that water as free fuel for hydro-generation. The hydropower generated created over $20 million offset of gas purchases.

Without TID's historic investment in modeling and the incorporation of technology and data in partnership with private, state and federal entities, it would have been very difficult for the TID Board to make such a consequential decision to release water before runoff was behind Don Pedro Dam.

**Next Phase Investments**

While the advancements TID has made in the last 25 years has been more significant than any watershed in the state, the District continues to lean into cutting-edge research and technology.

The District entered into a discussion with Cornell and DWR on a Climate Generator. This research was to develop a base line indication of the magnitude of climate change that one could expect. We already know that the hydrology is changing, the wet years are getting wetter more

often and the dry years are getting drier for longer periods of time. So the question is what hydrology should we be planning to and this research is considered vital for our sensitivity analysis for planning and operations purposes.

## Key Takeaway and Opportunities for Federal Action

TID's experience developing and implementing science and technology into its reservoir and watershed operations has paid dividends as discussed above, and there are opportunities to replicate this approach in other Basins in California and across the West. Several important lessons based on TID's program that are worth highlighting as other entities considering this approach include:

1. Infrastructure is still a critical backbone of water management. For TID, it is the combination of our models and use of day along with Don Pedro reservoir, our extensive distribution system, and other critical infrastructure that allow for these successes managing through droughts and floods. Technology will only take water management so far without robust infrastructure, and in fact, our knowledge of the watershed helps drive infrastructure decisions.
2. Making meaningful strides to be more precise in reservoir and watershed management requires a long-term dedication to investment and incremental improvement. TID's water management program did not happen overnight and it is important for decision makers to take an approach that gives these types of programs the time needed to test and work properly.

TID stands ready to work with other reservoir managers in California – whether federal, state, or other entities – to provide lessons learned and key findings from our experience. There are also opportunities for the federal government to improve and facilitate these types of actions. Increasing funding to help with ASO flights through the Bureau of Reclamation and other agencies, continued support for further improvements to FIRO, and greater certainty that federal regulators will incorporate modeling and studies into decision making – whether it be flood control regulation or other areas – would help advance efforts to maximize the benefits of existing reservoirs. Additionally, the Tuolumne River watershed is largely public land and ensuring proper management and wildfire risk reduction is increasingly important to mitigate impacts to reservoir and watershed management.

## Conclusion

Thank you for the opportunity to testify in front of the committee and share TID's history and our commitment to watershed and reservoir management. TID takes our commitment to water supply, recreation, public safety and stewardship seriously.

The 2023 example is profound, but those results are a byproduct of 25 years' worth of investments. TID strongly encourages all organization and agencies that have responsibilities for reservoir and watershed management to lean into the lowest-hanging fruit to enhance water supply reliability.

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# Westlands Water District

**House Committee on Natural Resources**
**Subcommittee on Water, Wildlife, and Fisheries**

Field Hearing on Water Abundance: Opportunities and Challenges in California

*September 6, 2024, 10:30am PDT*

Testimony of Allison Febbo, General Manager, Westlands Water District

Good afternoon, Chairman Bentz, Ranking Member Huffman, and members of the Subcommittee. It is a great privilege to appear before you.

My name is Allison Febbo, and I bring over 25 years of expertise and leadership in California Central Valley water supply operations and conflict management to the Subcommittee. I presently serve as General Manager of Westlands Water District (Westlands). Additionally, I hold several key leadership positions, including as board member to the San Luis & Delta-Mendota Water Authority, and as an advisory committee member to the Family Farm Alliance. I am dedicated to public service as well as the farms, farmworkers, and communities that rely on water supply exports from the Sacramento-San Joaquin Delta for their livelihoods.

Today, I am honored to testify as the General Manager of Westlands Water District.

Westlands and its farmers know first-hand the value of water and the importance of water conservation. Those instrumental in the formation of the Westlands are responsible for its existing water conveyance system, which is comprised entirely of efficient, pressurized and buried pipeline (approximately 1,100 miles of pipe). Over time, Westlands and its farmers continued to invest in this sophisticated system. All surface water diversions are metered, and Westlands is just completing its efforts to install meters on all groundwater wells. In many of the fields within Westlands, farmers employ highly efficient and technically advanced surface and subsurface drip irrigation or micro-sprinklers. The result of these investments is that farmers achieve some of the highest water use efficiencies in the world.

Farmers in Westlands are also incredibly productive, in large part due to the specific soils found in our service area. They grow approximately 60 different high-quality, nutritious crops under some of the highest environmental standards in the world – producing crops with a value of $2 billion and generating more than $4.7 billion in farm related economic activity each year, supporting nearly 35,000 jobs, and benefitting local communities in the San Joaquin Valley and across the state. Westlands' ability to grow food and provide economic benefits is completely dependent on the federal Central Valley Project.

## Challenges

While there are abundant opportunities to assist with California's water supply challenges, I must first spend some time discussing the challenges which include the evolving influence of changes in climate, changes in the regulatory environment at both the Federal and State levels, and constraints on our infrastructure. First let me discuss climate change. California has experienced several record breaking dry hydrologic years in the past several decades, as well as shifts in the accumulation and melt of snowpack that are symptomatic of a changing climate. These changes affect the performance of water supply infrastructure, such as dams, pump stations, and canals which were designed to operate under the climate conditions when constructed. Perhaps even more challenging, these changes in temperature and hydrology are adding new stressors to species that are adapted to historical conditions, and which are already tremendously stressed by the compounded changes of a modern, developed State of California.

A second challenge comes from the regulatory environment, which has several components including the way the laws are organized and how various agencies are charged with implementing the laws. Most frustrating perhaps are the incongruencies between the laws, agencies, and critical challenges facing endangered species.

The most significant Federal laws include the Endangered Species Act (ESA, although notably California has its own approach - CESA), and the Clean Water Act (enforcement of which has been delegated to the State under the auspices of the California State Water Resource Control Board's Water Quality Control Plan). Enforcement of these laws has been delegated among several State and Federal regulatory agencies, each with overlapping authorities and missions. These authorities, separately and in combination, do not address the key constraints to species recovery – as demonstrated by the lack of recovery or even conservation despite the high cost to California's water supply over the past three decades. The result is a disorganized and convoluted regulatory system which often confuses roles, hampers communications, and frustrates innovation and nimbleness.

Westlands recognizes the urgency to act to support conservation and recovery of California's endangered species. We acknowledge the State-led efforts to go beyond conservation and attain recovery, and do not believe this goal inherently conflicts with a reliable water supply for Delta exporters. However, this year has produced several examples of where the current regulatory framework for environmental compliance decision-making has prevented nimble action, at a high cost to water supply. Further, the Central Valley Project and State Water Project have long been the simplest to assign regulatory burdens, leaving many sources of stress on listed species unaddressed, likely resulting in an outsized cost to the two Projects because of the comparative ease of prescribing mitigation requirements for them. The proposed solution to this was included in the Water Infrastructure Improvements for the Nation (WIIN) Act, which requires more clarity on how specific mitigation measures prescribed by regulatory agencies relate to actions of storing and delivering water supply.

For the past several decades, updates to achieve ESA compliance have gradually reduced the reliability of water supply exports from the Sacramento-San Joaquin Delta, which are the foundational water supply for Westlands. Environmental review to ensure compliance with all these laws are currently underway, with scheduled completion dates at the end of this calendar year. For the past several months, Westlands and water agencies throughout the State have been reviewing upwards of 23,000 pages of documents explaining the proposed plans for the operation of the Central Valley and State Water

projects (Projects) and their anticipated effects on endangered species, consistent with Federal and State Endangered Species acts and the State's Water Quality Control Plan update.

Obviously, these environmental compliance processes are slow, tedious, and burdensome. They are also limited in that they are required to focus on the discretionary operations of the two Projects and have no mechanism to address uncertainty. These limitations can be frustrating in dealing with a species that is declining rapidly in the face of climate change and a host of other stressors that go beyond operation of the Projects. Further complications exist in the incomplete understanding that we have of the species, environment, and cumulative effects on the species. A critical outcome of this situation, from the perspective of Westlands and other water users, is that these laborious environmental compliance processes still result in: (a) a constant erosion of water supply reliability, (b) an unabated decline of the species, perhaps because the sacrifices in water supply are ineffectual, (c) lack of clear connections between species decline and Project operations in the context of all other stressors such as climate change and oceanic conditions, and (d) a complete inability to move swiftly to tailor operations to the benefit of both water supply and fisheries recovery.

## Opportunities

This leads me to the opportunities, which include improvements to the governance of fisheries recovery efforts, investments in infrastructure, and legislative assistance to safeguard the agricultural productivity of California for the nation and the world.

At present, Westlands is working with other Public Water Agencies to build in mechanisms to address uncertainty, to better govern water supply decision making, to clarify where water supply management is affecting species relative to all other stressors, and to monitor and improve actions taken to mitigate for those effects. The pathway to this is through robust adaptive management, which is an intended part of both the ESA compliance proposal for two Projects as well as for Healthy Rivers and Landscapes (formerly the Voluntary Agreements) that are proposed for compliance with the State's Water Quality Control Plan and the Clean Water Act.

If properly formulated, these "adaptive management" programs could provide a pathway to address uncertainty while also providing clarity on the success or lack of success from actions made with the intent to recover species and/or fully address impacts of the Projects. Adaptive management may also provide a pathway to modify efforts that are shown to be ineffective toward something more effective for both the species of concern and water supplies. The success of this will hinge on the commitment of agencies to use open and transparent information, dedication to critical review of actions taken with the intent to improve upon them for multiple purposes, and commitment to objective and transparent decision-making processes. Our experience from this year demonstrates that there is room to improve here: requests by Westlands and other water users for information on decisions made this Spring went entirely ignored. Another key to success in this area will come from our inclusion in the process – from information gathering to decision making – such that we can proactively assist where agencies may be less nimble. Westlands has valuable resources to offer and intends to be a part of the solution.

As a last note on transparency. Reclamation's current proposed action for ESA compliance includes several, seemingly voluntary actions to benefit species and prevent a jeopardy determination. While described as voluntary measures in the proposed action, they are not clearly tied to effects of a specific project, stated species, or specific state or federal legal requirements. It is Westland's opinion that, as

these actions are clearly being included to avoid a jeopardy determination by the Federal resource agencies, they ought to be considered as such. Under a standard process, if a Federal action results in a jeopardy determination, the resources agencies have the option to craft Reasonable and Prudent Alternatives that avoid or manage the causes of jeopardy. As is evident in the title of the alternative, being "Multi Agency Consensus", the process has resulted in the action agency including voluntary reductions as part of the proposed action. Section 4004 of the WIIN Act requires that any such Reasonable and Prudent Alternatives have a burden of proof and explanation offered to the affected water agencies that is higher than what is being provided under the current document. There may not be sufficient authority for Reclamation to take this approach and ignore the requirements placed by the WIIN Act on Reasonable and Prudent Alternatives.

Separate from governance improvements, infrastructure investments are needed to deal with changes in climate and water needs for the environment. Public investments at all levels are needed to restore existing conveyance systems that are the backbone of California's water supply. A broad array of efforts are required to repair and maintain conveyance facilities including addressing capacity constraints through subsidence corrections and dredging to restore natural conveyances. The Sacramento-San Joaquin Delta is an example where these actions can have multiple benefits (e.g., flood control, habitat restoration, fisheries survivorship, and water supply improvements).

New infrastructure is also required to adapt to climate change and the related changing needs from our current infrastructure. Moving high volumes of water when available and reducing water diversions during periods of high stress on aquatic species requires additional conveyance capacity and storage throughout the State. I'm proud to report that Westlands has made significant investments already in groundwater storage development within its own boundaries, with significant assistance by the Bureau of Reclamation and the State of California.

Additional investments are needed to further guard against drought in the future. Westlands is exploring long term water supply portfolio enhancements through collaborations and partnerships with other South of Delta diverters, such as Friant Water Authority and coastal municipalities. Water supply diversification could play an important role for agricultural communities.

I've been talking about solutions, and I'll end on one challenge that likely requires leadership to protect the long-term viability of agriculture, which is affordability. Unfortunately, most of the effective solutions being conceived for California's water supply issues cost a billion dollars or more – and that includes the maintenance projects. Further, the pathway to funding these projects is based on an investor-pays framework that challenges participation by agriculture, even for the maintenance of infrastructure that has been fully paid for by the agricultural water users. Urban areas have a far more reliable source of revenue compared with agriculture, which relies on revenues from crops that must compete on a global marketplace. We need help with a solution for funding water supply reliability enhancements that maintain crop diversity at home, where we grow the crops safely and with protections for our labor. Just this week, a USDA study was released and reported that food scarcity was on the rise. As food prices rise, more communities, including the ones that harvest our domestic food supplies, suffer from food scarcity. The burden of additional costs to maintain existing infrastructure is unlikely to help agriculture, national food security, or the disadvantaged communities that rely upon agricultre.

## Conclusion

I thank you again for coming to the San Joaquin Valley to learn first-hand about the challenges we are facing, and the opportunity to share our thoughts with the Committee. I look forward to working collaboratively to find long-sought solutions for recovery of endangered species, security and reliability for California water supply, and preservation of California agriculture that supports our local communities and our Nation's food supply and security.

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VI.

**Jason Phillips**
**Chief Executive Officer**
**Friant Water Authority**

**Testimony Before the United States House of Representatives**
**Committee on Natural Resources**
**Subcommittee on Water, Wildlife and Fisheries**

**Oversight Field Hearing on**
***Water Abundance: Opportunities and Challenges in California***

***Hotel Mission De Oro***
***13070 S Highway 33 Santa Nella, CA***

**September 6, 2024**

Chairman Bentz and Members of the Subcommittee:

My name is Jason Phillips, and I am the Chief Executive Officer of the Friant Water Authority in California's San Joaquin Valley. The Friant Water Authority (Authority or Friant) is a public agency formed under California law in part to operate and maintain the Friant-Kern Canal, a component of the Central Valley Project (CVP) owned by the Bureau of Reclamation (Reclamation). In addition to that responsibility, the Authority also advocates on behalf of the Friant Division and eastside communities for sound public policy on water management and operations.

Thank you for holding this timely and important field hearing and for the opportunity to appear before the subcommittee today. The title of this hearing couldn't be more apt. Year after year, regulatory decisions and legislative inaction in California are forcing us towards water scarcity over water abundance. This was again demonstrated recently when, after a devastating years-long drought, we had two wet winters that caused flooding in many parts of the San Joaquin Valley. This wet cycle should have ensured water abundance for our farms and communities regardless of what the next years bring us. But instead, many south of the Delta water users will only receive 50% of their supplies this year and we know one dry year will result in worse cuts for many. The inability to capitalize on our wet years to carry us through inevitable dry years, as our systems were designed, is a result of overly conservative and ineffective restrictions and regulations, along with decades of resistance to building new storage and other infrastructure in our state.

I look forward to the discussion about how to reverse this trend.

**Background on the Friant Division**

The 152-mile-long Friant-Kern Canal and the 36-mile-long Madera Canal, together with Friant Dam and Millerton Lake on the San Joaquin River, form the Friant Division of the Central Valley Project. On average, the canals deliver 1.2 million acre-feet of irrigation water annually to more than 15,000 farms on over one million acres of the most productive farmland in the world. Friant Division deliveries also are vital to meeting the domestic water needs of many small communities in the San

Joaquin Valley, as well as larger metropolitan areas, including the City of Fresno – California's fifth-largest city.

The Friant Division was designed and is operated as a conjunctive use project to convey surface water for direct beneficial uses, such as irrigation and municipal supplies, and to recharge groundwater basins in the southern San Joaquin Valley. The ability to move significant water through the Friant Division's canals in wetter years to store in groundwater recharge basins is critically important for the project to work as intended, and these operations sustain the primary source of drinking water for nearly all cities, towns, and rural communities on the Valley's East side.

**What is at Stake**

Working on a daily basis with the over 15,000 family farms and growers in the Friant Division, the simple reality is that operating a farm and growing food for our nation continues to be more and more difficult every year. While there are many contributing factors that add to the complexity of feeding America, the sad truth is that some of these – like a reliable water supply - are factors we can control. Yet for reasons I can't fully fathom, many elected officials and policy makers choose to stand in the way.

We must continue to focus on the critical importance of maintaining our country's food security and locally sourced foods. The multiple-year drought we have faced here in California and in many parts of the West – coupled with other domestic and global developments– has already affected the availability and price of food for many Americans. Rising food prices and global hunger are linked to the war across parts of the world, extreme climate events like the Western U.S. drought, and other global stressors.

Managing water for multiple benefits has long been a top goal for water managers across the West. For many years, a primary purpose of Bureau of Reclamation projects was to capture mountain snowmelt, store it, and distribute it during the long, dry summer months of the West, primarily to irrigated lands that produced food and fiber. Generations ago, our leaders had the wisdom and vision to plan, design and construct a water delivery system meant to level out the variability in California's hydrology by capturing and storing water in the wet years for use in the dry years. And for many years, this system worked. But over the past few decades, due to decisions to prevent the ability of the system to function as designed, our world-class water system is now failing us.

**Decades of Decisions that Reduce Abundance**

Over the past 30 years, unelected and largely unaccountable State and federal regulatory agencies have taken a flawed approach to implementing existing environmental laws. The result is ever increasing requirements on our water projects that have redirected water away from the Valley in an attempt to aid a subset of fish populations dependent on the Sacramento-San Joaquin River Delta (Delta) that are struggling.

The hydrology in the Central Valley of California has always experienced extended periods of both very wet years and severe drought years. For most of the past century, the state and federal water projects, the State Water Project (SWP) and CVP respectively, were operated in a sensible and responsible manner that would ensure 100% deliveries of contracted supplies even through extended drought periods. Even following the passage of the federal and state Endangered Species

Acts (ESA) and the Central Valley Project Improvement Act (CVPIA), communities and industries who rely on the SWP and CVP could expect a water supply allocation sufficient to ensure safe drinking water and irrigation needs. But that is not the case anymore. The same projects that could deliver 100% supplies every year, can no longer do that even in years with plenty of rain and snow, meaning that the average has become severe cuts to water supply the cities and farms depend on.

Starting in the early 1990's, the interpretation of state and federal laws, regulations, lawsuits, and decisions by unelected officials, began to force change to how water is managed in California, and not for the better. As each year has passed, these changes have only gotten worse. This is not hyperbole and is the reason why you often hear the term or see billboards or social media posts deriding the "man-made drought". The result is broken system that is not working for people or species and, as discussed further below, is causing cascading impacts to San Joaquin Valley communities.

Even in years with incredible hydrology, like those we have been blessed with over the last two years, a lack of new or expanded water storage facilities results in excess water released to the ocean, often causing floods and wreaking havoc on our communities, bridges and roads on its way. Making matters worse, a significant portion of the water that we do store in reservoirs in wet years is forced to be released to comply with operating requirements not specifically required by law. Had we collectively taken the bold steps to capture more of this water whether in new facilities, expanded facilities, or in aquifers underground, and had legislatures not allowed the release of so much water after being captured, not only would we be experiencing less flood damage, but we would prevent damaging water delivery reductions in future dry years.

These decisions have been taking water away from farms and communities in increasing quantities yet have made no discernable change to help the decline in species populations. Regulatory actions over the last 30 years have also impacted native species and migratory birds dependent on the Pacific Flyway and important habitat provided by agriculture. But these decisions continue to be undertaken, in many instances, because unelected officials at regulatory agencies are delegated the responsibility for being the final decisionmakers on one of the most significant public policy issue we face in the state of California: how to best allocate the state's limited water resources.

**Pending Biological Opinion: An Additional Step in the Wrong Direction**

The 2019 Biological Opinion (BiOp) for Long-term Operation of the CVP and SWP was the first time in the last three decades that a regulatory change would have improved the reliability of CVP and SWP water deliveries. Career scientists at federal agencies made a good faith effort to revise restrictions that are not working, and develop options that would increase flexibility in operations, broaden the suite of solutions needed for species recovery, and still comply with ESA protection.

Unfortunately, the 2019 BiOp was litigated by the State of California and environmental groups, and instead of defending the work that was done, one of the first acts of the current federal administration in 2021 was to scrap the work done and start over by reinitiating consultation with fisheries agencies and openly admitting to reconciling operations with California Endangered Species Act requirements. We are concerned that the new BiOp will continue the trend of the past several decades and take an overly conservative approach to ESA compliance and further reduce

the ability of the CVP and SWP to deliver contract water. A preliminary review of the new BiOp and new proposed constraints on the long-term operation of the CVP and SWP validate our concerns. Specifically, we anticipate that the new plan will not only maintain old restrictions that we know can be removed or relaxed, but it will further restrict the ability of Reclamation to use storage in Shasta Reservoir, the largest reservoir in the CVP and a critical facility needed to meet contract deliveries. These requirements will cost the CVP about 400 TAF on average per year – cuts that will again fall on agricultural water users and disadvantaged communities.

**Root Causes of California's Water Challenges**

Many of the worst impacts to water supply reliability are the result of an almost dogmatic approach to implementing the Endangered Species Act and other regulations that is focused on increasing flows and using Reclamation projects in California and other Western states by the federal government to "mitigate" the impacts of a changing climate and declining species rather than wholistically addressing species needs.

By using the ESA as the regulatory "hammer" focused on addressing a single species and targeted acutely on water releases from federal projects, regulators continually fail to address many of the underlying needs for species viability and recovery. Time after time we see the institution of requirements that pit the demand of one listed species against another, fail to address many of the known constraints to species recovery such as habitat restoration, and focus on a singular or small set of factors (such as temperature) that is not necessarily a good indicator of species survival. This type of failed species management will continue to severely limit flexibility in water management and produce plans that are bound to fail species.

Additionally, the current approach to implementing the ESA creates an unending loop of restrictions and uncertainty that makes investing time and money in solutions that would mitigate impacts difficult for water districts and the farmers and communities they serve. In many instances, policy seems to have the intended purpose of ensuring federal programs can continue indefinitely rather than make progress that allow relaxation of restrictions – an issue that is reinforced and perpetuated by the fact that species are virtually never delisted.

Lacking infrastructure is another root cause of our water challenges in California. The insufficient storage in California has been discussed for many years and was reinforced in recent years when millions of acre-feet of water that could have been stored to provide drought resilience was lost to the ocean. Additionally, restoration of conveyance capacity and development of new conveyance is needed to enable increased groundwater storage and efficient movement of water to where it is needed.

**Impacts of Reduced Deliveries**

Decisions made by policy makers and federal agency staff have major real-world impacts, both direct and indirect.

First and foremost, the perpetual man-made drought that the San Joaquin Valley faces reduce the affordability of water and comes at a cost to society overall. Increasingly, reduced water availability is causing disruptions in drinking water supplies with the impacts disproportionately falling to communities that are the least able to afford replacement supplies and increasing costs for those

that can pay to mitigate lost supply. There is also significant expense to complying with the increased regulatory burden and engaging in the never-ending cycle of shifting policies and regulations.

The costs of reduced water delivery do not stop with those communities directly impacted, however. Food and fiber produced in the San Joaquin Valley and enabled by a reliable water supply feed the world. Simply put, bad water policy reduces the reliability of irrigation supplies or increases water prices is driving some farms to cease operation, weakening the ability of the U.S. to produce affordable fresh fruits, nuts and vegetables for itself, and impacting thousands of jobs and billions of dollars in economic activity.

Reductions in surface water delivery also have ripple effects for water management in the San Joaquin valley. For example, increased reliance on groundwater overdraft has exacerbated impacts to drinking water systems and land subsidence, causing damage to the Friant-Kern Canal, Delta-Mendota Canal, and California Aqueduct and compromised their ability to deliver water in the San Joaquin Valley and Southern California. The southern third of the Friant-Kern Canal has lost 60% of its capacity, which translates to 100,000 – 300,000 acre-feet of water per year that doesn't flow to farms and communities.

Additionally, by reducing the canal's ability to deliver water to aquifers in the south Valley, the conveyance constriction will also worsen existing water supply and water quality problems in the more than 55 rural and disadvantaged communities within the Friant Division service area, all of which are almost entirely reliant on groundwater wells for their water supplies.

Thankfully, the first major fix of the Middle Reach of the Friant-Kern canal was finalized this year, and future repairs to this and other reaches of the Canal are being planned, but time is still of the essence as recent hydrologic conditions offer significant opportunities to replenish groundwater supplies and allow us to prepare for future water supply challenges.

## Opportunities to Correct Course

### *Regulatory Solutions*

It is important to note that no new major environmental laws specific to California water have been enacted by Congress in over 30 years. The last major law passed by Congress that reduced water delivery capability and received any public debate at all was the Central Valley Project Improvement Act (CVPIA). Enactment of the CVPIA was a major change in the way the CVP was operated, and although it caused significant impacts at a tremendous cost, at least it was a public process that included a lot of thought, debate, negotiation, and ultimately approval by the Congress.

Today, the operations of the CVP and SWP are restricted by federal and state agencies and their unelected government officials who continually add new regulatory requirements and reduce the ability of our vast water management system to deliver water.

If the pattern of using environmental regulations to continually reduce or eliminate the ability to deliver water contracted through the CVP and SWP to people and farms in California, we will never really be able to declare the drought over, even if we get another good winter next year, or even a series of wet years.

The time has come to have additional congressional oversight, direction, and accountability in how the water system in California is regulated. Taking the approach of conserving our way to sustainability will most certainly create a zero-sum game of moving water from agriculture to other demands, and within the next decade result in the largest reduction of productive farmland this country has seen in more than a generation.

Bold, common-sense action is needed now to avoid a crisis. The current patchwork of laws enacted to solve this problem and avoid a crisis are not working. Without additional action by Congress, failure is guaranteed, and California's environment and economy will never be what it once was or what people expect it to be.

Current laws guiding water decisions, enacted decades ago, have been interpreted to almost unilaterally allow for an unrestricted amount of water to be reallocated from current beneficial uses to a continued, frivolous attempt to turn the trajectory of a small subset of endangered species. I have to believe that this is not what any past or even the current congress intended. It is way past time for those elected to represent the people of the state to provide fresh direction that is clear on how to interpret environmental regulations and who the final decision-makers should be on these multi-generational choices on how to prioritize our water resources, and provide the tools needed to be successful. Water managers need to be provided with the laws and resources necessary to plan for the future so that when the next big water year is upon us, we can capture and store for later the water that is currently causing such damage to our communities.

Several specific changes would greatly improve the regulatory landscape for water users. First, it is imperative that agencies improve transparency and accountability in developing and implementing regulations, including adhering Section 4004 of the WIIN act as it continues work on the BiOp that is currently under review. Requiring the use of adaptive management with accountability is another strategy that would help ensure regulations are actually achieving their purpose, maximizing species benefits while minimizing impacts to water operations and other activities. Indeed, collaborative decision-making and adaptive management based on documented science and objective criteria have served as the basis for success in many basins where effective recovery programs are improving species populations and enable water development and operations. This approach needs to be taken in California.

Legislative changes including Endangered Species Act reforms to clarify area of frequent implementation disagreements and other issues, along passage of the FISH Act to address perpetuation of single species management decisions, are also important to begin to change the punitive regulatory posture many federal agencies currently take.

Lastly, finding workable solutions to all pending regulatory actions and ensuring that all of the various regulatory regimes impacting Delta operations are aligned and not additive to each other is critical to ensure water users don't continue to face "death by a thousand cuts." This includes the pending revisions to the 2019 BiOps, Agreements to Support Healthy Rivers and Landscapes in California, and continuation of the San Joaquin River Restoration Program.

We stand prepared to work with the Subcommittee and the federal and state administrations to put common sense back into the equation regarding effective management of our water resources. I

believe Friant is particularly well positioned to provide technical, policy, and legal input to decisionmakers at all levels of government.

***Infrastructure Solutions***

Combined with the regulatory certainty created by the actions discussed above, investments to improve and develop new infrastructure are also essential to restore water abundance in California. A major component of this effort requires restoring conveyance capacity of the Friant-Kern and Delta-Mendota Canals and the California Aqueduct that have been impacted by subsidence. Restoration of these foundational pieces of infrastructure will ensure that water can be efficiently moved across the region, and combined with increased groundwater storage, will increase opportunities to capture floodwater when available for use during dry years. New conveyance facilities are also needed, including potentially new conveyance systems in the San Joaquin Valley and extending the Folsom South Canal, both of which could allow more water to be delivered in wet years making water users less reliant on existing water sources in times of drought.

Additional surface and groundwater storage must also remain a major priority. Completing expansion of San Luis and Los Vaqueros Reservoirs, development of Del Puerto and Sites Reservoirs and other new storage projects, and improved use of technology to maximize storage behind existing dams would all improve the water supply situation in California. There are also opportunities for increased groundwater storage facilities, regulating and small surface storage facilities, and other similar facilities that would expand overall storage capacity for the State. Friant also supports continued evaluation of raising Shasta Dam as a means to ensure viability of fisheries reliant on cold water, while protecting irrigation supplies.

Additionally, our conventional method of monitoring snowpack is in great need of improvement, and funding at a Federal level is significantly lacking as it's mostly been left to local entities and the State. Friant is supportive of legislation to authorize the coordinated collection, management, and dissemination of precise and accurate surveying and mapping of snowpack that will benefit local water agencies, and State and Federal water operators.

Development of needed infrastructure and monitoring will improve water security for the Valley by increasing supplies, diversifying available water sources, and implementing the Sustainable Groundwater Management Act in a fashion that is sustainable to irrigated agriculture.

To be clear, without regulatory reform to stop the uncontrolled, unending taking of California's water supplies in pursuit of the proven failed approach to recover endangered species, there is no amount of new infrastructure, recycling, efficiency, or any other form of water supply development that can bring us to a place of abundance. Without this reform, the only plausible outcome will be a level of farmland retirement in the next decade we have not seen in our lifetimes.

**Conclusion**

I again thank the Subcommittee for traveling to the Valley to hold this critical hearing and for the opportunity to testify. The rigid and severely constrained management of the CVP over the last 30 years is not working for our communities or the environment, and the calls for an ever-increasing amount of water being diverted from cities and farms to provide additional flows out of the Delta need to be reversed.

We need to be asking how we can bring balance back to our system and increase available water for all needs in all years. I hope that this hearing will be the start of moving toward some normalcy for CVP and other Western water project operations. I look forward to continuing working with the Subcommittee and the many stakeholders in the Valley on these issues and would be happy to answer any questions.

VI.

# SOUTH DELTA WATER AGENCY

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September 4, 2024



## Committee on Natural Resources
## Subcommittee on Water, Wildlife and Fisheries

I, JOHN HERRICK, ESQ., declare as follows:

1. I am and have been counsel and general manager of the South Delta Water Agency since 1998. The Agency was created by statute in 1972 to protect the water quantity and quality in the channels of the southern Sacramento-San Joaquin Delta for the beneficial use of the water on the surrounding lands. We are also empowered to assist in flood control, water rights and other related issues which pertain to the protection and use of the beneficial uses of the water.

2. The channels of the southern Delta convey waters form the various tributaries to the Delta pursuant to inflow, tidal action and extractions of water from small individual pumps all the way to large pumps of the Federal Central Valley Project and the State Water Project. The volume of the water in the channels is the supply for plant and animal wildlife, local agriculture and export needs (which include agricultural, municipal and industrial uses). The later includes part of the supply for over 25 million Californians.

3. In the past, we assumed that in years of high flow, silt that naturally builds up in the channels would be moved further downstream and eventually into the San Francisco Bay and Pacific Ocean. Of course that process might not always adequately maintain channel capacity, but it was thought to at least minimize any need for dredging.

4. Approximately 10 years ago we noticed that after a high flow year the silt in some areas had increased and not been moved downstream. Since that time we have monitored the overall silt in our channels. We now conclude that a tipping point was reached and now every year, more silt accumulates in the area regardless of the water year type.

5. For example in a channel known as Doughty Cut, we have monitored a location that has progressed from an open channel, to one with a sand bar, to the sand bar now an island.

6. The impacts from this accumulation of silt are not just significant but approaching catastrophic. I have attached a map and some pictures to highlight three locations. The first is the Doughty Cut mentioned above. That channel is the main route for tidal water to move upstream and enter Tom Paine Slough. Thus, it is the supply for the (approximately) 6500 acres of farmland dependent on it for agricultural use. Given the silt in Doughty Cut, Tom Paine Slough no longer fills on the incoming tide. The result is that from July through early August of this year, the district which pumps water onto the 6500 acres was only able to provide 38-77% of the water needed by the crops. You may recall that time period was an extremely hot spell, if not the worst on record. The first picture shows the Slough nearly empty during that hot spell. Farming cannot survive if its water supply is curtailed or shut off during the growing season.

7. The second area designated on the map where the Undine Road bridge crosses Middle River. Middle River is one of the four main channels in our area. We have watched the silt build up in this channel for at least 20 years now to the point where many diversions cannot operate at full capacity or simply cannot operate. The pictures of this location show that on November 20, 2023 the channel was about 3 feet across and about 6 inches deep. "Normally" is it 30 yards across and 4-6 feet deep. With the pictures is a color- coded Figure showing the build up of silt just from 2023.

8. The last area is on the San Joaquin River, where a local project is monitoring the configuration of the River. Per the engineers involved, that one area alone saw an increase of 250,000 cubic yards of silt from the high flows in 2023. This means of course that the greater southern Delta area received millions of cubic years of silt in 2023 alone. As the silt builds up, the channels become more shallow and the volume of water decreases. One can only speculate as to how long it will be until some areas simply cannot divert from the surrounding channels.

9. The last graphic I've attached is cross-section of Undine Road at Middle River. It shows what the DSM2 model (the model used to evaluate changes in Delta conditions and to project impacts from changes to those conditions) and gauges "think" existed at this location on November 20, 2023, and what actually existed according to our (very) recent bathymetry. As you can see, the model thinks there is over 2 ½ feet of depth and 50 feet of width, when in reality the channel less than a foot. Such a disconnect in what actually exists from what the "accepted" analysis shows exists means that any and all in-Delta evaluations are both wrong and unreliable.

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10. The degradation of the southern Delta channels will eventually destroy local agriculture, radically impact the ability to export water to areas of shortage, impair native fisheries and result in a shallow, marshy swamp of hot, stagnant water with a net increase in water lost to consumptive use.

11. Maintaining the channels, as was always anticipated, will preserve flood conveyance capacity, protect agriculture, protect exports, fight invasive plant species, and restore cool water channels needed for endangered fish species.

Respectfully submitted,

John Herrick, Esq.

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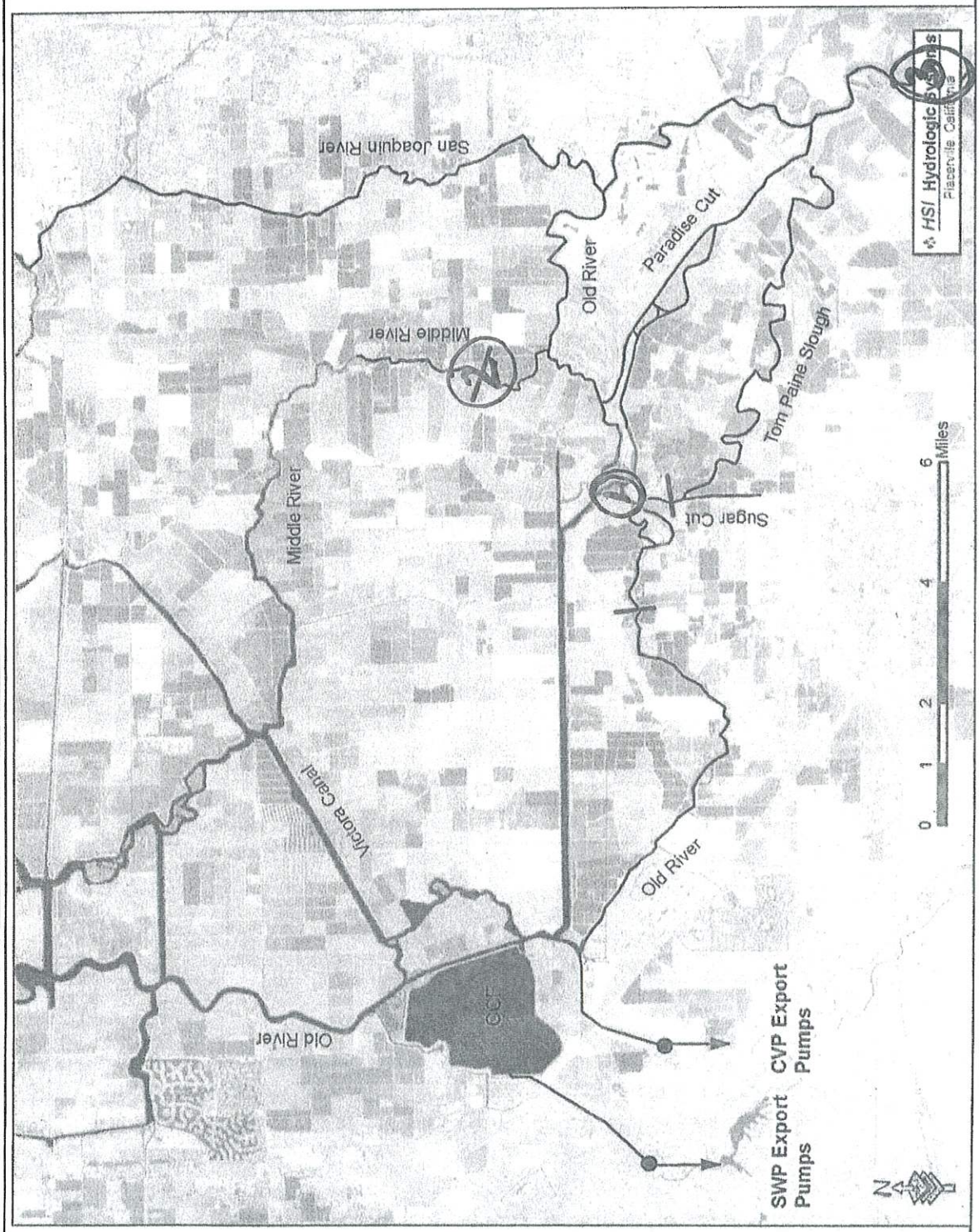


Figure 1 Export Analysis Comparison Locations.

TOM PAINE SLOUGH

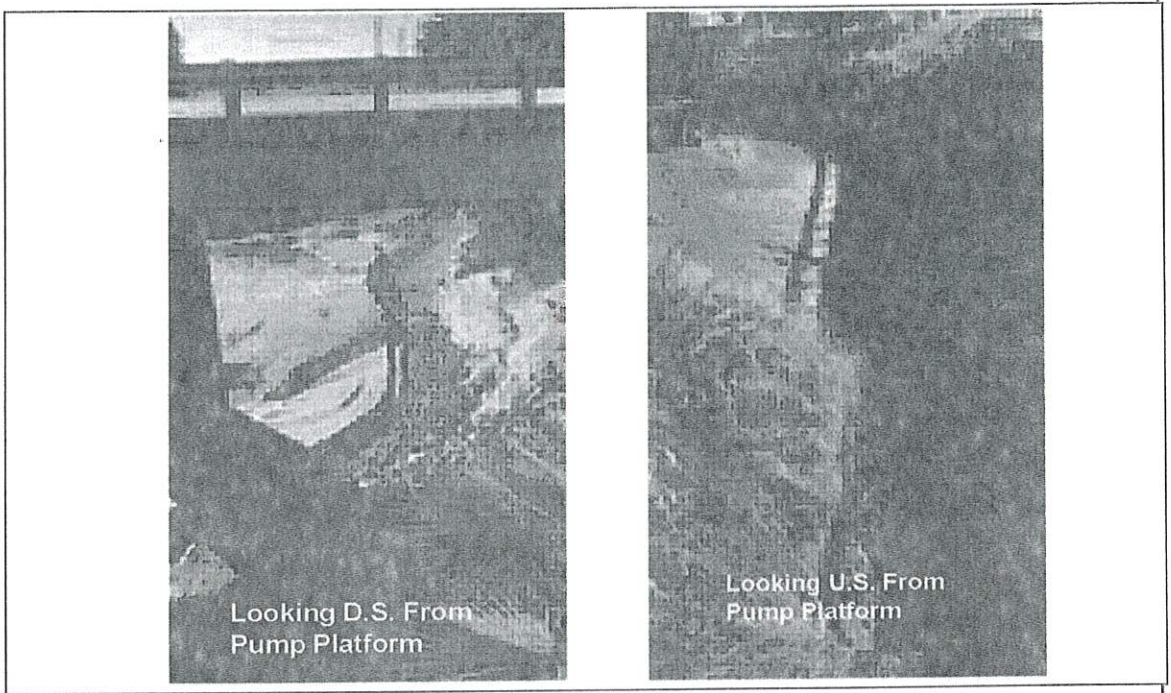


Figure 8 Middle River Upstream and Downstream of Undine Bridge

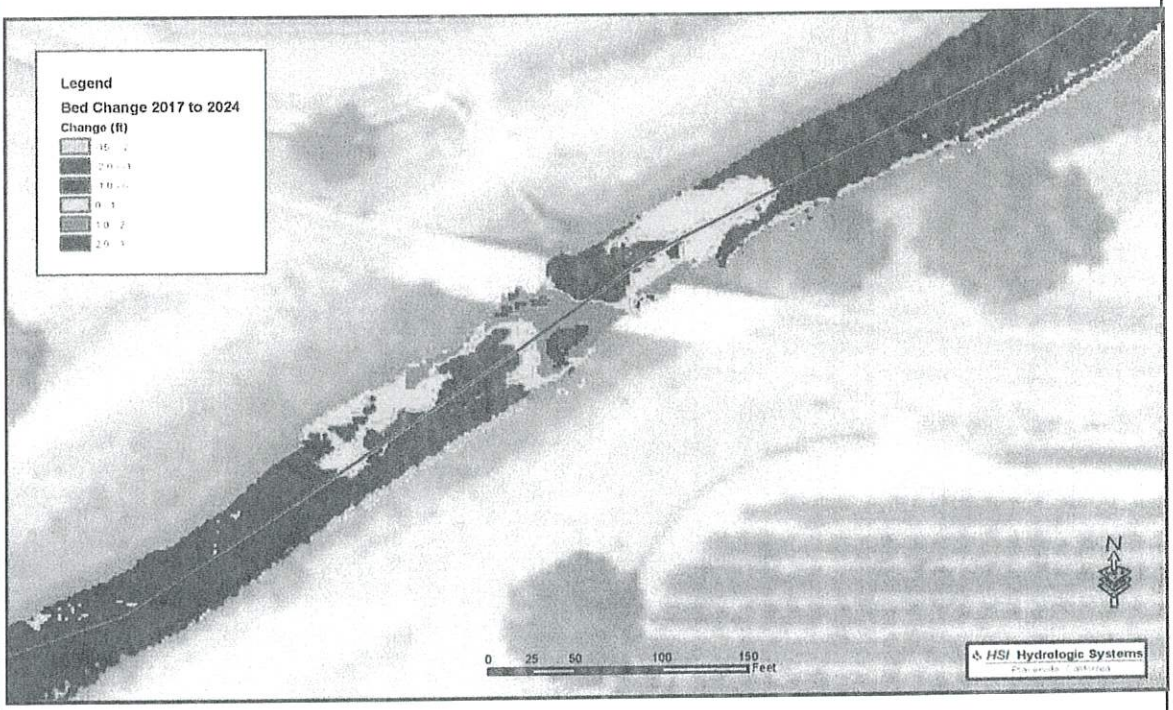


Figure 9 Middle River Siltation at Undine Bridge.



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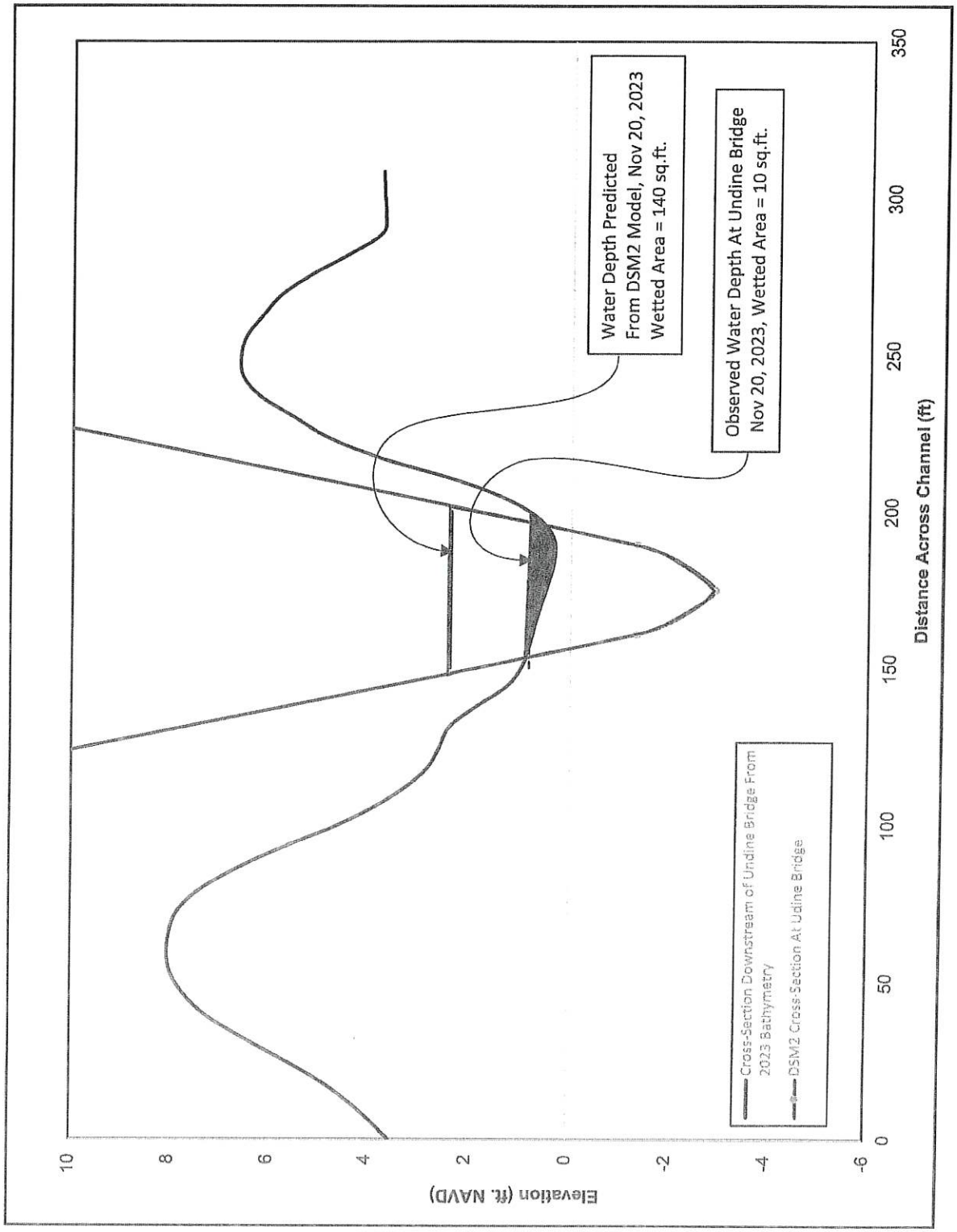


Figure 7 Channel Geometry at Undine Bridge, Middle River

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Wednesday, August 21, 2024

**To:**
Director Karl Stock, US Bureau of Reclamation and
Director Karla Nemeth, California Department of Water Resources

**Sent Electronically:**
Karl J Stock (KStock@usbr.gov)
Karla Nemeth (Karla.Nemeth@water.ca.gov)

**Subject/Re: FallX2 Request**

Dear Director Karl Stock and Director Karla Nemeth:

Westlands Water District (Westlands), the San Luis & Delta-Mendota Water Authority, the Friant Water Authority, and the State Water Contractors (SWC) request that the Central Valley and State Water projects (South of Delta CVP and SWP, together Projects) adaptively manage the Fall X2 provision for 2024, as described in the 2019 U.S. Fish and Wildlife Service (USFWS) Biological Opinion (BiOp) for Reinitiation of Consultation on the Coordinated Operations of the CVP and SWP (2019 BiOp), in recognition of (a) the peer-reviewed scientific conclusions indicating that the measure is ineffective for its stated purpose, (b) the reality of monitoring results showing that Delta smelt would not be present to benefit from the measure, (c) the inherent importance of the water supplies for multiple purposes, and (d) because adjustment of the Fall X2 measure can be accomplished in a manner consistent with the current environmental compliance processes, with limited needs for agency resources to be devoted to this effort. We elaborate on each of these points below.

We understand that this request comes to you at the onset of preparations for this year's Fall X2 operation and during a time when staff of many agencies are focused on consultation efforts for long-term operations of the Projects. While acknowledging these circumstances, we believe your agencies must take decisive action to demonstrate the advancement of science-based decision-making and prevent wasteful and unnecessary water supply impacts associated with a measure shown to be ineffective to benefit Delta smelt. We are available to make any necessary resources available to assist in implementing this adjustment and to otherwise collaborate in this opportunity for an inclusive process to manage based on real-time conditions and the best available science.

## THE VALUE OF FALL X2 TO DELTA SMELT

This year, two important findings were released regarding the efficacy of the Fall X2 operation. These built on previous findings and conclusions that Fall X2 produces no measurable benefits to Delta smelt.



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The first finding was published in a peer-reviewed journal, and the second was affirmation of those peer-reviewed findings in the USFWS Draft BiOp recently provided to interested stakeholders for review, pursuant to the provisions in the Water Infrastructure Improvements for the Nation (WIIN) Act. These findings add to the growing body of evidence that the Fall X2 action, as originally proposed in 2008 and as modified in 2019, does not provide the originally hypothesized, critically required benefit for Delta smelt.

First, Polansky, et al.[1] (2024) used life stage models of Delta smelt to evaluate the potential of various flow augmentation operations on the species' population growth rate. The authors concluded that the Fall X2 measure did not appear to have any measurable benefit to the species:

> *"The findings here suggest summer, **not fall** or winter–spring, is the most important season for freshwater flow augmentation to assist Delta Smelt population growth rate."* [emphasis added]

While more work is needed to understand the value of summer outflow to Delta Smelt and any contribution the CVP or SWP should make beyond the augmentation already occurring, the 2024 USFWS Draft BiOp further explains that the best available scientific data does not show a likely benefit to Delta smelt from the Fall X2 measure:

> *The Delta Smelt Summer-Fall Habitat Action also includes a Fall X2 element (BA Section 3.7.6.1). The Fall X2 action is a 'pulse flow' in September of Wet and Above-Normal water years that carries over into October, which is officially the subsequent water year. As proposed, the pulse of freshwater would maintain a 30-day average X2 at 80 km in both months. The Fall X2 action was originally in the Service's 2008 Reasonable and Prudent Alternative (Service 2008) and was motivated by concerns about proposed 'flatlining' of habitat suitability in the autumn (Feyrer et al. 2011, p. 124 and their Fig. 5). The modeled Delta outflows for September and October are about the same in the PA as the NAA (i.e., within the CalSim 3 error) so there is no proposed change from baseline [Figure]. Currently proposed outflows in September and October are lower than what they were in the 1970s through 1990s (Feyrer et al. 2011, their Fig. 2), but they are higher than what occurred naturally [Figure]. . . . However, the more important question for the purposes of this effects analysis is whether the PA's fall flow regime will have negative effects on delta smelt, specifically if variation in fall outflow will result in a detectable change in survival of the affected life stage. The Service has previously concluded that it would (Service 2008; 2019); however, this conclusion is not supported by life cycle analysis [Table]. It is possible that the Fall X2 action could have effects on small numbers of delta smelt and that the effects could have positive or negative consequences. (Draft BiOp, pgs. 100-101.)*

The USFWS Draft BiOp also evaluates the potential effects of the Delta Smelt Summer-Fall Habitat Action (i.e., operation of the SMSCG and the Fall X2 measure) on longfin smelt. It concludes the "*Delta Smelt Summer-Fall Habitat Action will not have discernable effects on the longfin smelt DPS.*" (Draft BiOp, pg. 207.) The Draft BiOp then explains:

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[1] Polansky, L., Mitchell, L., & Nobriga, M. L. (2024). Identifying minimum freshwater habitat conditions for an endangered fish using life cycle analysis. Conservation Science and Practice, 6(5), e13124. https://doi.org/10.1111/csp2.13124.



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*Longfin smelt use the estuary very differently than delta smelt. A fundamental difference is the seasonality of the longfin smelt DPS's distribution in the estuary.*

*By July, when the SMSCG would begin to be operated, the distribution of the longfin smelt DPS is not constrained by an upper salinity bound. . . . When longfin smelt begin returning to the estuary in the fall, distribution is broad but is influenced by X2 (CDFW 2020, their Fig. 2). However, there is no information available to indicate that the location of X2 affects survival of fish by this stage in their life beyond potentially affecting the risk of entrainment. (Draft BiOp, pgs. 205, 207.)*

While we note that the USFWS Draft BiOp is a draft, and that it is also fresh in its release, it does rely upon rigorous, peer reviewed scientific studies and is consistent with several other studies of Fall X2 that have been conducted since the measure was first proposed in 2008.[2]

## MONITORING CONDITIONS

Delta smelt are sensitive to abiotic conditions including temperature, turbidity, and salinity. Along with food availability, contaminants and other stressors, each of these three parameters is monitored at several locations throughout the Delta. Significant peer-reviewed literature describes the temperature tolerances of Delta smelt. In a recent effort, the Delta Coordination Group considered the latest science and determined that at water temperatures greater than 22 deg C[3] (71.6 deg F) Delta smelt experience sub-lethal effects and temperatures greater than 25 deg C[4] (77 deg F) are lethal to Delta smelt.

This year, California's Central Valley experienced a staggering number of consecutive days with ambient temperatures above 110 degrees Fahrenheit – approximately two weeks straight in most locations. In the Delta, water temperatures are a function of atmospheric temperatures and exceeded 22 deg C for several weeks and 25 deg C for a few days in the north Delta arc region (see Figure 1 below) where the majority of the Delta smelt were caught in the monitoring in winter and spring of this year. Unfortunately, this likely resulted in a very few, if any surviving Delta smelt in the summer this year.

Recent monitoring for Delta smelt has yielded very disappointing results (see Figure 2 below), indicating that only one smelt has been observed in recent weeks. It is very possible that despite hatchery augmentation and operations of the Projects for parameters that can be controlled at reservoirs, there may not be a remaining, measurable population of Delta smelt to benefit from a Fall X2 action.

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[2] Effects Analysis for the Delta Smelt Fall Habitat Action In 2019, U.S. Bureau of Reclamation https://www.usbr.gov/mp/nepa/includes/documentShow.php?Doc_ID=39803; FLOAT-MAST (Flow Alteration - Management, Analysis, and Synthesis Team). 2020. Synthesis of data and studies relating to Delta Smelt biology in the San Francisco Estuary, emphasizing water year 2017. IEP Technical Report 95. Interagency Ecological Program, Sacramento, CA.

[3] 22 deg C is the threshold that Delta Coordination Group considered when Delta smelt can survive for extended periods of time, but the probability of increased health and condition (i.e. growth) will decline with increased sublethal stress (e.g., physiological, behavioral).

[4] 25 deg C is the threshold that Delta Coordination Group considered when Delta smelt will not survive for extended periods of time.



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## THE COST OF FALL X2

Fall X2 has had varying, but significant, water supply and associated socioeconomic costs when implemented, and has resulted in the redirection of millions of acre-feet of water that could have been beneficially used since its implementation in 2008. For example, in 2023 alone, the water cost to implement the measure was greater than 730,000 acre-feet between the two Projects. This water could have otherwise been kept in storage, delivered for use at farms and in cities, stored or banked for drought resiliency or used for a variety of other purposes, including other environmental purposes like improving water quality or temperature improvements. For the 2024 operational year, Fall X2 is anticipated to reduce the CVP and SWP water supplies by an estimated 350,000 acre-feet, primarily through reduced exports, but also through additional releases from upstream reservoirs. For context, this is equivalent to one-third of Folsom Lake or nearly $200 million worth of water, if purchased on the open market, with untold additive economic value to the State were it able to be used in a different manner.

If retained, the 350,000 acre-feet of Project supplies would provide an almost 10 percent increase for south-of-Delta CVP contract allocations and separately a 5 percent increase in SWP contract allocations. The importance of an additional allocation of this magnitude cannot be overstated. It would further efforts by public water agencies in investments to maximize supplies in wetter years, such as this one, including investments in groundwater and surface storage to improve conjunctive use and meet implementation requirements pursuant to the Sustainable Groundwater Management Act.

## A PATH TO SCIENCE-BASED DECISION-MAKING

We recognize the complexity of concurrent administrative efforts that are progressing related to consultation for long-term operations. We believe that a path exists for considering this request without causing undue effort or excessive process that would redirect agency resources and impact other priorities.

The USFWS 2019 BiOp and the 2024 Interim Operations Plan (2024 IOP) provide the U.S. Bureau of Reclamation with flexibility to modify the Summer-Fall Habitat Actions, which include a Fall X2 requirement in Above Normal and Wet Years, through a structured decision-making process that involves the Delta Coordination Group. Table 5-7 on page 165 of the 2019 BiOp states that the CVP and SWP shall be operated to maintain a monthly average X2 at 80 kilometers during September and October of Above Normal and Wet years. However, the text immediately below Table 5-7 provides that:

> *Because the specific actions of this project element are to be determined annually by a Delta Coordination Group through a structured decision-making process, the specific actions taken in each water year may be unique based on evaluation of outcomes of prior actions and conditions for that year.*

Furthermore, the 2019 BiOp at pg. 170 provides that because *"[t]he effects to individuals and to the population of [the Summer-Fall Habitat Action] cannot be quantified at this time . . . the structured decision-making process called for under this action will incorporate new results each year to help refine the potential benefits that may be realized."* Because the 2024 IOP does not modify the Summer-Fall Habitat Actions from the 2019 BiOp, this aspect of the 2019 BiOp remains unchanged. (2024 IOP, ¶ 5



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[*"coordinated operations of the CVP and SWP not governed by Paragraphs 6 through 18 will continue to be governed by the 2019 Biological Opinions, 2020 ROD, the California Department of Water Resources (DWR) 2020 ITP for DWR's operations of the SWP (DWR's ITP), and any other applicable statutory or regulatory requirements"*].)

Collectively, these provisions of the 2019 BiOp and 2024 IOP provide authority for the Delta Coordination Group to modify the 2024 Fall X2 action. For the reasons stated, we believe that such a decision can and should be made swiftly.

## NEXT STEPS

As summarized above, the science and 2024-specific monitoring information do not support implementation of this action, this year. We look forward to discussing the potential to adjust the 2024 Fall X2 action, and are prepared to assist the regulatory agencies with the collection of monitoring information that could inform future adaptive management. This could include collection of Environmental-DNA (eDNA) or other monitoring data throughout the Delta. There is precedent for this type of cooperation, such as in 2021 when the Delta smelt turbidity bridge was surveyed by water users. Further, this is the type of cooperation that we would like to exercise in the future.

In closing, we thank you for your consideration of this important matter. We feel that a decision to not implement Fall X2 this year has a clear basis in the observations, science, and processes identified above. In the event of a different decision, being to either fully implement or modify Fall X2, we respectfully request a written justification that includes a scientific basis. Such documentation will provide crucial transparency for this and future science-based decision-making and could highlight areas requiring targeted research to address any remaining areas of disagreement or uncertainty pertaining to Fall X2.

Sincerely,

**Allison Febbo, General Manager,**
**Westlands Water District**

**Federico Barajas, Executive Director,**
**San Luis & Delta-Mendota Water Authority**

**Jennifer Pierre, General Manager,**
**State Water Contractors**

**Jason Phillips, Chief Executive Officer,**
**Friant Water Authority**



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CC:

Thomas Gibson / DWR
Kristin White / USBR
David Mooney / USBR
Paul Souza / U.S. Fish and Wildlife Service
Kaylee Allen / U.S. Fish and Wildlife Service
Donnie Ratcliff / U.S. Fish and Wildlife Service
Jennifer Quan / NOAA Fisheries
Cathy Marcinkevage / NOAA Fisheries
Chuck Bonham / California Department of Fish and Wildlife

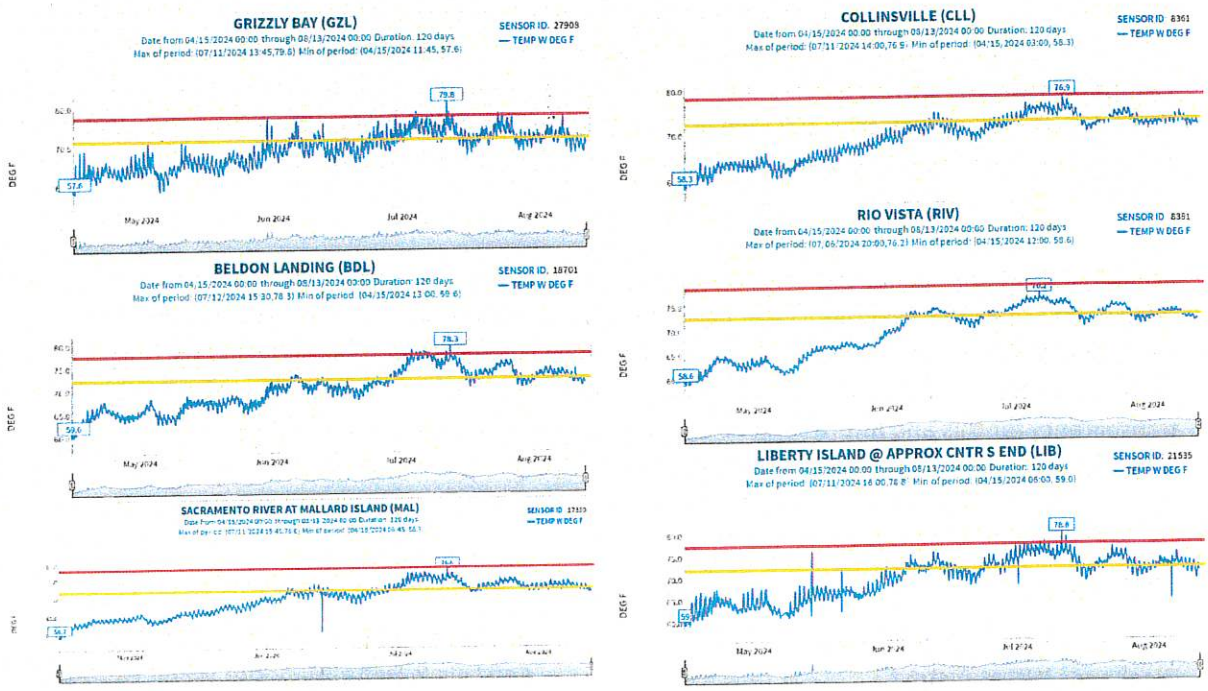


**Figure 1:** 15-min or hourly observed water temperatures at several locations along the north Delta arc during the summer months from CDEC. Yellow and red lines are included to roughly correspond with 71.6 deg F and 77 deg F, respectively.



(2)

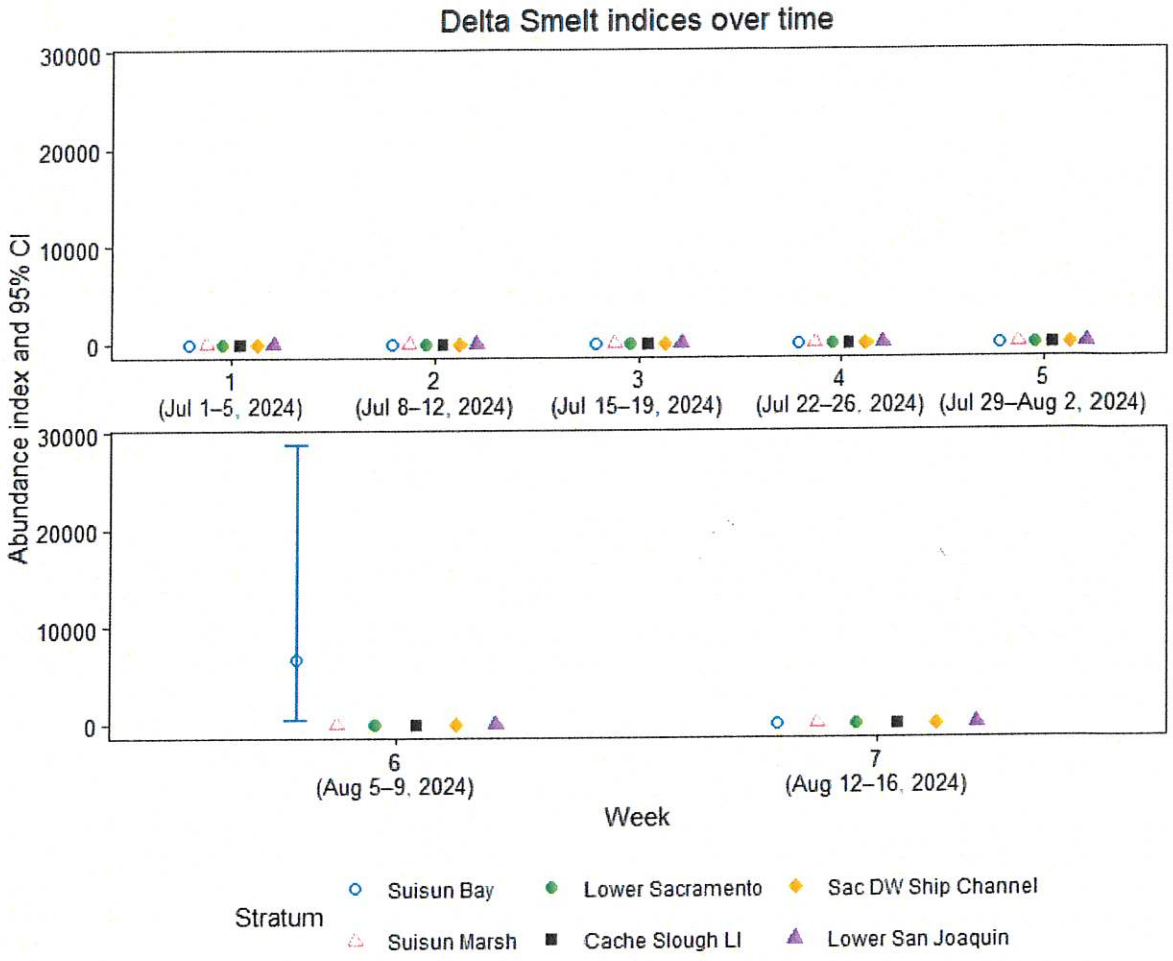


**Figure 2:** Weekly Delta Smelt Monitoring Summary for Summer 2024 (source: Figure 1 from 08/21/24 Draft EDSM Weekly Summary, USFWS)



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VI.

**Water Blueprint**
for the San Joaquin Valley

SOUTHERN CALIFORNIA WATER COALITION

August 21, 2024

The Honorable Gavin Newsom
Governor, State of California
1021 O Street, Room 9000
Sacramento, CA 95814

The Honorable Debra A. Haaland
Secretary
U.S. Department of the Interior
1849 C Street, N.W.
Washington DC 20240

RE: Request for temporary suspension, using adaptive management, of Summer Fall Habitat Action (Fall X2) management action implementation for 2024 due to recent scientific findings of ineffectiveness of the measure for its intended purposes and impacts to water supply

Dear Governor Newson & Secretary of the Interior Haaland,

Thank you for the opportunity to submit comments on the implications of implementing the Fall X2 Action for delta smelt during the 2024 water year. The management action will create a significant and unnecessary hardship on communities, the agricultural industry, and environmental resources in the San Joaquin Valley by reducing water-supply availability. Recent science has demonstrated that the action has not provided its intended benefits to delta smelt, a species protected under the state and federal Endangered Species Acts that is endemic to the Sacramento-San Joaquin Delta.

**Water Supply Cuts Plague the San Joaquin Valley**

California faces continual challenges to maximize its opportunities to put water resources to their best available uses. After multiple years of severe drought, aquifers are depleted and still recovering, and the federal Central Valley Project and State Water Project (collectively "Projects") are delivering half of contractual surface water supply obligations, despite precipitation this year being 90 percent of historical average. The Fall X2 Action, the primary element in the Summer Fall Habitat Action, which mandates increased Delta outflow in the fall of wetter years that is intended to benefit delta smelt, is an additional impact to water-supply availability that can be modified pursuant to the state and federal Endangered Species Act authorizations of Project operations. Under current authorizations, the action is scheduled to be implemented in September and October this year. While the precise water costs of the action in 2024

are uncertain -- some estimates indicate a reduction in water supply of between 300,000-400,000 acre-feet --implementation of the action in 2023 reduced available water supply for the Projects by 734,000 acre-feet, a water cost of $557 million if those supplies were purchased on the open market.

**Flawed Science Continues to Guide Project Operations**

The original statistical analysis supporting the Fall X2 Action was flawed. It attributed ecological benefits to delta smelt from flows through the Delta in the fall, failing to recognize that the benefits were actually due to flows through the Delta in the spring. Since then, at least a dozen analyses have either failed to find benefits from the Fall X2 Action or have repeated common analytical mistakes. More recently, a Structured Decision-Making process, which included multiple stakeholders, utilized four different quantitative models, including two by the U.S. Fish and Wildlife Service (FWS), finding that the current fall action did not provide population-level benefits to delta smelt. The FWS itself in reviewing USBR's current Biological Assessment of the reoperation of the water projects stated that "the Fall X2 action is not anticipated to have observable effects on delta smelt survival." In other words, the federal wildlife agency has found no demonstrated benefits from the management action on the listed species.

**Outdated Regulations Harm Disadvantaged Communities and Impact the State Budget**

While it is essential that management actions be implemented to protect delta smelt and improve their numbers and habitat quality over time, it is equally important that we do not persist in implementing actions where the weight of scientific evidence, including conclusions drawn by federal water resources and wildlife management agencies, indicates little or no intended benefits to the listed fish. California is facing a severe budget deficit, and many thousands of people in disadvantaged communities in the San Joaquin Valley face economic hardship due to an inability to find work on farms -- in large part because water-supply reductions have limited planted acreage and associated economic activity.

The regulations targeting delta smelt that influence water deliveries from the Delta are intended to be implemented in an adaptive management framework, which was included in the underlying program in the current opinions that govern operations of the Projects. That framework allows for learning from data collection while implementing resource management activities. It requires monitoring, review, and adjustment or retirement of actions to improve the effectiveness of them or to replace them and to reduce the costs associated with implementing them. The agencies should advance adaptive management, and suspend implementation of the Summer Fall Habitat Action this year, given the absence of reliable scientific information supporting its efficacy and the conclusions of the Service in its Draft Biological Opinion. Suspending the Fall X2 Action in 2024 would serve as a clear indicator that the federal and state resource agencies are adaptively managing project operations in line with the advancement of scientific understanding of delta smelt ecology and behavior, while reducing impacts to socioeconomically disadvantaged communities from actions that have little to no demonstrated benefits to listed species.



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**Summer Fall Habitat Action Should Be Eliminated through Adaptive Management**

Given the points above, the Water Blueprint respectfully requests that the Fall X2 Action be suspended for 2024, concordant with the adaptive management principles that are embedded in the underlying regulatory determinations and documents.

Sincerely,

Eddie Ocampo, Chair
**Water Blueprint for the San Joaquin Valley**

Mr. Charles Wilson
Executive Director & CEO
**Southern California Water Coalition**

cc:

The Honorable Camille Calimlim Touton
Commissioner, U.S. Bureau of Reclamation

The Honorable Wade Crowfoot
Secretary, California Natural Resources Agency

Ms. Karla Nemeth
Director, California Department of Water Resources

Mr. Karl Stock
Regional Director, U.S. Bureau of Reclamation, California Great Basin Region

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STATE OF CALIFORNIA – CALIFORNIA NATURAL RESOURCES AGENCY

GAVIN NEWSOM, *Governor*

**DEPARTMENT OF WATER RESOURCES**
715 P STREET, P.O. BOX 942836
SACRAMENTO, CA 94236-0001
(916) 653-5791

Allison Febbo, General Manager
Westlands Water District

Federico Barajas, Executive Director
San Luis & Delta-Mendota Water Authority

Jennifer Pierre, General Manager
State Water Contractors

Jason Phillips, Chief Executive Officer
Friant Water Authority

August 30, 2024

Dear General Managers Febbo and Pierre, Executive Director Barajas, and Chief Executive Officer Phillips,

Thank you for your letter on August 21 asking that the Central Valley Project (CVP) and State Water Project (SWP) adaptively manage the Fall X2 provision for 2024. We also thank you for acknowledging that your request came later than ideal, at the literal onset of this measure and during a time when staff of many agencies are focused on consultation and permitting efforts – also at your request – for long-term operations of the projects. As always, we take your input seriously and continue to reflect on it.

The Department of Water Resources and U.S. Bureau of Reclamation, in partnership with the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS), are currently exploring a revised CVP and SWP fall 2024 operations plan that may include a modification of the Fall X2 action from its description in the 2019 USFWS Biological Opinion and the 2020 Incidental Take Permit issued by CDFW. We will work with you as we prepare the appropriate documentation and applications for this modification under federal and state law.

We appreciate your shared interest in continuing to improve ecological conditions given the dire situation of Delta smelt where its population is at incredibly low numbers. We also appreciate your concern about the potential water supply impacts of measures, which is why our agencies have been and are consistently adaptively managing the projects under existing permits and opinions. We look forward to discussing with you how we anticipate actions such as Fall X2 will be handled through adaptive management in updated permits and biological opinions governing water project operations. As climate change heightens hydrological extremes, we must explore ways to be more responsive within this regulatory structure to the dynamic nature of the estuary, physical conditions, hydrology, water year type, and myriad other factors.

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Our departments also would like to clarify key points raised in your letter, in particular, the assertion that there are no ecological benefits to the Fall X2 action. The available science demonstrates that the Fall X2 action provides some important benefits to Delta smelt, such as increased food abundance and favorable water temperatures. The question of whether these benefits translate to more Delta smelt the following year has only recently been brought to light through a new USFWS life cycle model. The life cycle model analysis shows that summer flows are more important drivers of Delta smelt abundance. This does not mean the Fall X2 action will not have some population benefits, especially given that it is expected to expand habitat in Suisun Bay. This is the one area in the upper estuary that had suitable water temperatures during the heat wave in July 2024.

It is important when evaluating and incorporating new science to consider the full context of relied upon scientific studies. Doing so advances collaborative science and helps ensure sound policy. This is why we thank you for pointing out in your letter that the full context of the recent analysis includes the possibility that summer, not fall may be the most important season for freshwater flow augmentation. This new science is now part of our ongoing collaborative and adaptive processes with you and others.

In the last several years, our agencies have demonstrated a commitment to adapt. This reality is reflected in the specific evolution of Delta smelt protection. A multi-agency experiment has looked at and implemented newer approaches factoring in salinity control gate operations, new publications and monitoring data, including 2011 and 2017, and collaboratively tested hypothesis about summer habitat. The current state permit and federal opinions have already adopted such adaptive improvements like integrating new science into monitoring, shifting from an overly-fall centric approach, and finding more efficient use of water compared to the original 2008 requirements. Indeed, the specific location of the Fall X2 requirement has been adapted to reflect a better balance between protection and water supply and new science. The USFWS Delta smelt life cycle model work has also facilitated a shift from a salvage-based threshold to one that relies on environmental conditions. These are but a few examples of us working with you to continue to adapt. Moreover, adaptive management and sound science are two fundamental areas of alignment between the projects and are key robust elements of the new permits and opinions that you have been engaged with developing for several years.

Any estimated changes to fall 2023 should inherently consider changes to water supply, upstream storage, and exports. Your claim that the "water cost" of implementing the Fall X2 requirement in 2023 exceeded 730,000 acre-feet between the federal and state projects is not correct. We are available for further conversation about these estimates and wider project impacts.

We appreciate your concerns and look forward to more dialogue as we manage environmental and economic needs.

Sincerely,

Karla A. Nemeth

Karla A. Nemeth, Director
Department of Water Resources

Paul Souza

Paul Souza, Regional Director
U.S. Fish and Wildlife Service

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Adam Nickels, Principal Deputy Regional Director
Bureau of Reclamation

Charlton Bonham, Director
Department of Fish and Wildlife

Cc: Jennifer Quan, Regional Administrator
National Oceanic Atmospheric Administration

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# United States Department of the Interior

BUREAU OF RECLAMATION
Bay-Delta Office
801 I Street, Suite 140
Sacramento, CA 95814

IN REPLY REFER TO:
BDO-100
2.2.1.06

Draft for Public Review

To: Kristin White
Deputy Regional Director

From: David Mooney
Bay-Delta Office Manager

Subject: National Environmental Policy Act (NEPA) Review for the proposed 2024 Central Valley Project (CVP) and State Water Project (SWP) Delta Smelt Summer and Fall Habitat Action

This draft memorandum evaluates whether a modification to the Delta smelt Summer-Fall Habitat Action, through an adaptive process described in the 2019 final Environmental Impact Statement on the Reinitiation of Consultation on the Coordinated Long-Term Operation of the Central Valley Project and State Water Project (2019 FEIS) and adopted by the 2020 Record of Decision (2020 ROD) on the Long-Term Operation of the Central Valley Project and State Water Project, falls within the range of impacts analyzed in the 2019 FEIS. This draft memorandum provides information to support input by interested parties. Although Reclamation does not usually distribute memoranda for public comment, Reclamation's view is that offering public comment under these circumstances is consistent with the purposes of NEPA. Comments by interested parties would be considered and responded to, as appropriate, to finalize this memorandum.

## PROPOSED ALTERNATIVE ACTION

The California Department of Water Resources (DWR) proposed the modification (referred to as the "Alternative Action") to protect Delta smelt similarly or better than an October monthly average 2 ppt isohaline ("X2") at 80 km from the Golden Gate Bridge with less impact to water supply. The Alternative Action could support comparing outcomes with actions taken in water year 2023 that included both a September and October X2 operation. On September 6, DWR independently initiated the operation of the Suisun Marsh Salinity Control Gates. The proposed Alternative Action is:

- Implement the September Fall X2 requirements (80 km) as described in the 2019 FEIS and the 2019 U.S. Fish and Wildlife Service (USFWS) Biological Opinion and 2020 ITP.
- Operate the Suisun Marsh Salinity Control Gates September $6^{th}$ - $30^{th}$.
- Beginning October 1, off-ramp implementation of the Fall X2 requirement (80 km) and operate to State Water Resources Control Board D-1641 requirements for October.

Full details of the proposed modification are provided in the Attachment to this memorandum. If Reclamation adopts the Alternative Action, Reclamation would share with DWR the water and financial costs of the gate operation.

## ENVIRONMENTAL COMPLIANCE

The Summer-Fall Habitat Action is described in the 2019 FEIS. It includes initially modifying project operations to maintain a monthly average 2 ppt isohaline ("X2") at 80 km from the Golden Gate in above normal and wet water years in September and October ("Fall X2") and a toolbox of additional actions including operation of the Suisun Marsh Salinity Control Gates, to provide habitat components of low salinity, turbidity, suitable temperatures, and food in the same open water geographic area for Delta smelt. The purpose of the Fall X2 action is to establish contiguous low salinity habitat from Cache Slough to Suisun Marsh during the fall months of wetter year types where there is high quality habitat from complex bathymetry in deep channels close to shoals and shallows and proximity to tidal or freshwater marshlands and other wetlands. Reclamation and DWR also implement operation of the Suisun Marsh Salinity Control Gates under the 2015 Suisun Marsh Preservation Agreement (SMPA).

The proposed action described in the 2019 FEIS and adopted in the 2020 ROD includes the potential for Reclamation and DWR to work with USFWS to modify this component of the PA to implement the new actions in lieu of the salinity management action to provide similar or better protection than the 80 km salinity management action in consideration of:

- Habitat acreages in Suisun Marsh, Grizzly Bay, and other adjacent areas available to support Delta smelt recruitment (e.g. 0-6 ppt at Belden's Landing, non-lethal temperatures, etc.),
- Recruitment projections based on lifecycle modeling and/or monitoring to evaluate the expected trend in Delta smelt with and without the 80 km salinity management action, and
- The presence (or absence) of Delta smelt in both the target areas (main Delta channels and Suisun Marsh) and other areas (such as Montezuma Sough and Cache Slough), including information from monitoring, presence/absence modeling, or similar tools.

### Final Environmental Impact Statement

In the 2019 FEIS, Alternative 1 (the Preferred Alternative) included the Summer-Fall Habitat Action with elements that could vary year-to-year. The action was anticipated to include operations of the Suisun Marsh Salinity Control Gates in some years and/or a fall action to maintain the X2 position at 80 kilometers in above normal and wet years. Modeling for the Summer-Fall Habitat Action relied on qualitative analysis. Generally, the potential impacts and benefits of Alternative 1 were anticipated to range between what was evaluated for Alterative 1 and the No Action Alternative. In other words, the 2019 FEIS included a conservative analysis to ensure that actual impacts fall within the range analyzed. The No Action Alterative included the Fall X2 action from the 2008 USFWS Biological Opinion which consisted of 81 km X2 in September and October and passing inflows in November.

None of the resource areas omitted from the 2019 FEIS would now be implicated in the Alternative Action.

Impacts to the resource areas in the 2019 FEIS could potentially change as follows:

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- *Water Quality:* Effects that would result from implementation of the Alternative Action are similar to those analyzed in the 2019 FEIS. While the October component of the Fall X2 action in the 2019 FEIS would likely result in salinity levels, chloride, and bromide concentrations being lower than the Alternative Action, particularly in the western Delta, the CVP and SWP would continue to be operated, in real-time, to meet the Bay-Delta WQCP objectives (2019 FEIS: Appendix Water Quality pg.G-93-96, Appendix F Modeling pg.2146, Figure 45-4). The Suisun Marsh Salinity Control Gates would be operated in October if the 2015 SMPA prescribed salinity standards for Suisun Marsh are near exceedance, so the salinity in the Marsh would not be impaired.
- *Fish and Aquatic Resources:* Effects that would result from implementation of the Alternative Action are anticipated to be similar to those analyzed in the 2019 FEIS. Under Alternative 1, Fall X2 was primarily achieved through export reductions and storage releases with an intention to minimize storage releases from CVP reservoirs. Alternative 1 specifically sought to reduce the reliance on releases from Shasta Reservoir. For conditions in 2024 under the Alternative Action, Fall X2 is unlikely to result in significant decreased river flows because it is unlikely that the October Fall X2 action would need to be met through reservoir releases.

  Water temperature related impacts were considered for winter-run and spring-run Chinook salmon that could affect spawning and survival of juveniles. When releases are lower, water temperatures can be slightly higher; however, October releases for Shasta and Folsom are not likely to be driven by X2, but instead by minimum flows to build storage for next year. Regardless, the additional water temperature related impacts to winter-run and spring-run Chinook salmon would be negligible and within the range analyzed in the 2019 FEIS, as Reclamation would continue to implement temperature management measures consistent with current Sacramento River and American River temperature management plans and water temperatures would be expected to remain low enough to be tolerated by the early life stages. (2019 FEIS: Main Body -- Winter-run Chinook salmon: pg. 5-53; Spring-run Chinook salmon: pg. 5-57)

  Water temperature-related impacts were also considered for the Southern Distinct Population Segment of Green Sturgeon related to a reduction in suitable spawning habitat resulting from reduced flows in the Sacramento River which could impinge the upstream limit of spawning. However, the confidence in this impact was low because of uncertainty about the effects of other potentially important effects on Green Sturgeon spawning distribution. In contrast, increased water temperatures near the upstream spawning location in September from seasonal operations of some years may benefit Green Sturgeon larvae. The additional water temperature-related impacts to Green Sturgeon continue to be uncertain due to other potentially important effects. As such, any releases are anticipated to be within the range of effects analyzed in the 2019 FEIS. (2019 FEIS: Main Body – Southern DPS Green Sturgeon pg. 5-58)

  Potential impacts to Delta smelt as a result of Fall X2 were considered in the 2019 FEIS based on food availability and low-salinity zone habitat extent. Under the impact evaluation, it was anticipated that reductions in Delta outflow during fall could negatively affect Delta smelt food availability in the Suisun Bay and Marsh region although there was some uncertainty in the extent to which outflow changes would be of the magnitude predicted under Alternative 1. It was also contemplated that Alternative 1 could change

food availability relative to outflow changes attributable to hydrological conditions (i.e., wetter vs. drier years). Under the Alternative Action, reductions in Delta exports would be expected to have similar effects on food availability to those analyzed in the 2019 FEIS. Reductions in Delta outflow during fall could also reduce the surface area of low-salinity zone water (i.e., salinities between 1 and 6) under Alternative 1. Under the Alternative Action, impacts to the low-salinity zone would be expected to be within those analyzed in the 2019 FEIS. Although operation to D-1641 criteria may increase entrainment risk, Reclamation would continue to implement real-time operations that minimize entrainment including counting all fish towards annual salvage loss thresholds that would limit reverse Old and Middle River flows and the D-1641 Export to Inflow ratio. Moreover, October is generally before the entrainment season. Finally, consistent with Alternative 1, Reclamation under the Alternative Action will continue to implement the Delta Smelt Summer-Fall Habitat Action to manage other summer-fall habitat elements that contribute to the recovery of the species. (2019 FEIS: Main Body – Delta Smelt pg. 5-71)

Multiple other aquatic species (e.g. American Shad, Striped Bass, Spotted Bass, California Roach, etc.) were evaluated in the 2019 FEIS. Generally, temperature impacts were the focus of the impact analysis. Temperature impacts due to the Alternative Action would be anticipated to be similar to those analyzed under Alternative 1, as described above for salmonids and Green Sturgeon. In the Delta, Reclamation's operations would not be anticipated to contribute to substantial temperature impacts. (2019 FEIS: Appendix O – pg. O-248 to pg. O-263)

- *Terrestrial Biological Resources:* Salinity impacts on terrestrial species from Fall X2 were not analyzed in the 2019 FEIS. However, plant zones in complex tidal wetlands are influenced by inundation regime and salinity (2019 Final EIS: Appendix P pg. 10). Salinity levels in Suisun Marsh and Bay vary throughout the year and are influenced largely by inflow from the Delta (Reclamation et al. 2011). The 2015 SMPA prescribes salinity standards for Suisun Marsh to protect and improve terrestrial habitats that would still be met.
- *Water Supply Resources:* Generally, the potential impacts from the Alternative Action are anticipated to be similar to those analyzed in the 2019 FEIS and may provide net water supply benefits due to the decrease in salinity requirements (and therefore outflow) in October.
- *Groundwater Resources:* Impacts from Fall X2 on groundwater resources were not analyzed in the 2019 FEIS separate from surface water supplies. If benefits to surface water supply are anticipated with the Alternative action, then less groundwater pumping and less impacts to groundwater are anticipated.
- *Power Resources*: Impacts from Fall X2 were not separately analyzed in the 2019 FEIS. Additional significant impacts to power are not expected to result given the extent of the proposed modification. The variability in power generation remains within the impacts analyzed.

The Alternative Action is not expected to result in the additional identification of significant impacts nor mitigation and avoidance measures.

**Reclamation 2020 ROD**

Reclamation's 2020 ROD adopted the 2019 Proposed Action consulted upon for the USFWS 2019 Biological Opinion and analyzed in the 2019 FEIS. The ROD explained that that the Proposed Action includes the *"Delta Smelt Summer-Fall Habitat action to improve Delta Smelt food supply and habitat, thereby contributing to the recruitment, growth, and survival of Delta Smelt."* The ROD further provides that *"The flexibility of actions for summer-fall Delta Smelt is backstopped by a commitment to maintain X2 (the distance from the Golden Gate Bridge where the salinity on the bottom is 2 parts per thousand) no more eastward than 80 km in above normal and wet years during September and October."*

Under the Alternative Action, the contribution to recruitment, growth, and survival would be accomplished through increased operation of the Suisun Marsh Salinity Control Gates and the commitment to backstop adaptive management of the action through Fall X2 would not be required. Support for the Alternative Action is provided in findings from life cycle modeling in Polansky et al. (2024) that the Fall X2 action is not anticipated to have observable effects on Delta smelt as described in the Attachment to this memorandum. Delta smelt may have a similar or better foraging benefit from the use of the Suisun Marsh Salinity Control Gates to lower salinity in Suisun Marsh. The "backstopp[ing]" reference is not a commitment to maintain Fall X2 no more eastward than 80 km while also implementing adaptive actions. Rather, as indicated in the description of the Summer-Fall Habitat Action in the 2019 FEIS, it is intended to ensure that X2 is maintained at 80 km if Reclamation and DWR cannot demonstrate that a different action would provide similar or better conditions.

The Alternative Action and associated analysis were discussed with the Delta Coordination Group on September 6 and was transmitted on September 12 for further discussion and input anticipated to be scheduled the week of September 16. A request for USFWS to confirm effects of the Alternative Action and the materials provided to the Delta Coordination Group are included in the Attachment to this memorandum. The USFWS reply will be incorporated and attached for finalization of this memorandum. Confirmation from USFWS is not formal structured decision making identified in the 2020 ROD but is a suitable science-based framework comparable in rigor to structured decision making.

Given conditions this year and the review above, the Alternative Action is expected to be within the effects analyzed under the National Marine Fisheries Service (NMFS) 2019 Biological Opinion and the 2020 ROD. The time window of the Proposed Action considered in the 2019 FEIS and evaluated by NMFS in their 2019 Biological Opinion includes the month of September; therefore, there is no expansion of the season of analyzed operation of the Suisun Marsh Salinity Control Gates. Additionally, tidal operation of the Suisun Marsh Salinity Control Gates could impede passage by at most 6 hours, if at all. The boat locks allow passage between the times of gate openings.

**2024 Interim Operations Plan**

Current operations are governed by the 2024 Interim Operations Plan, which referenced DWR implementation of ITP Cond. Of Approval 9.1.3.1 (includes 80 km X2 in Above-normal years) but no Reclamation operation as to the Summer-Fall Habitat Action outside of Below Normal years (paragraph 11). Under the court's order, operations of the CVP and SWP that are not addressed in the IOP will "continue to be governed by the 2019 Biological Opinions, 2020 ROD,

the California Department of Water Resources (DWR) 2020 ITP for DWR's operations of the SWP (DWR's ITP), and any other applicable statutory or regulatory requirements."

Water Year 2024 is an "Above-Normal" water year; therefore, the 2020 ROD controls CVP operations for the Summer Fall Habitat Action.

**CONCLUSION**

The Alternative Action is within the range of impacts described by the 2020 Record of Decision and the existing environmental compliance documentation provide adequate to compliance with NEPA following confirmation by USFWS. The PA as described in the 2019 FEIS and adopted in the 2020 ROD encompassed the ability to modify this component to implement the new or modified actions to provide similar or better protection than the 80 km salinity management action.

**ATTACHMENT**

U.S. Fish and Wildlife Service Confirmation Memorandum, including the Delta Coordination Group Materials

cc: CVO-100 (LEJohnson)

VI.

## Anthea Hansen

**From:** Cheri Worthy <cheri.worthy@sldmwa.org>
**Sent:** Tuesday, September 17, 2024 9:12 AM
**Subject:** Information re $10/AF Fee for Healthy Rivers & Landscape Program Implementation

**Sending On Behalf Of Executive Director Federico Barajas:**

South-of-Delta CVP Contractors,

The San Luis & Delta-Mendota Water Authority ("Water Authority") is reaching out to you as an initial step toward implementing the Healthy Rivers & Landscapes Program (previously known as the "Voluntary Agreements"). As discussed during the September 12th Board of Directors meeting, the Water Authority will be drafting an Activity Agreement to enable the collection of a $10/acre-foot fee from south-of-Delta CVP contractors. While we are sending this email to all south-of-Delta CVP contractors, some contractors may ultimately pay the fee through other entities, such as the Friant Water Authority; we expect ongoing coordination.

The Water Authority will be scheduling a workshop on October 10th to fully brief south-of-Delta CVP contractors. Logistics for this workshop are forthcoming.

In advance of the workshop, some background information regarding the Healthy Rivers & Landscapes Program and the Water Authority's "Activity Agreement" process is below and attached.

If you have any questions, please contact me or Water Policy Director Scott Petersen at federico.barajas@sldmwa.org or scott.petersen@sldmwa.org.

Thank you,
Federico Barajas
Executive Director

**

**Background Information**

**What is the Healthy Rivers & Landscapes Program?**
The State Water Resources Control Board ("State Water Board") is currently considering updates to its 2006 Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary ("Bay Delta Plan") in two phases (the "Plan amendments"). The State Water Board has proposed an "unimpaired flow" approach that would have an estimated two million acre-foot ("AF") water cost to cities and farms. The unimpaired flow approach has the potential to cause a significant reduction in exports south-of-Delta.

To avoid such reduction, water users, including CVP contractors, have worked with state agencies since 2018 to develop an alternative watershed-wide approach to flows, ecosystem restoration, and water supply reliability. This effort was originally termed the "Voluntary Agreements," and is now referred to as the Healthy Rivers & Landscapes Program ("HRL Program"). (See SWC website and CNRA website for additional background.)

**Why will the Water Authority be collecting $10/acre-foot?**
Through the HRL Program, water users have committed to certain flows and funds. Flow commitments borne by south-of-Delta CVP contractors will be met by (1) CVP export cuts, and (2) flow contributions to a water purchase program. In addition, to fund both the water purchase program and science component of the HRL Program, Reclamation and CVP south-of-Delta water agencies have committed to paying $10/AF of exported water.



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The State Water Board is expected to consider action on Phase 2 of the update to the Bay Delta Plan in early 2025. In advance of that time, in order to ensure the ability of the HRL Program to be successfully implemented, HRL Parties have committed to collecting one year of advance funding. Reclamation will need Congressional authority to collect HRL funds from CVP contractors; federal legislation will be sought. In the interim, the Water Authority will be collecting the $10/AF charge.

**What is an Activity Agreement and do I need to participate?**

Through an "OM&R Transfer Agreement" between the Water Authority and Reclamation, the Water Authority is authorized to collect OM&R water rates from CVP contractors for water delivered or moved using certain CVP facilities. Because the $10/AF charge will not be associated with OM&R of CVP facilities, the Water Authority will not utilize the Transfer Agreement mechanism to collect the $10/AF charge. Instead, the Water Authority intends to collect the charge via an "Activity Agreement."

The Water Authority frequently uses Activity Agreements with its members and other entities to provide for undertaking and sharing costs and benefits of authorized activities, e.g. for transfer programs, SGMA activities, etc. To collect the $10/AF charge, the Water Authority will draft an Activity Agreement that will be provided to all south-of-Delta CVP contractors with anticipated payment obligations.

CVP contractors will need to participate in the HRL Program in order to be considered a "Covered Entity." Non-covered entities may face more strict regulatory requirements to be established by the State Water Board in order to comply with the Bay-Delta Water Quality Control Plan.



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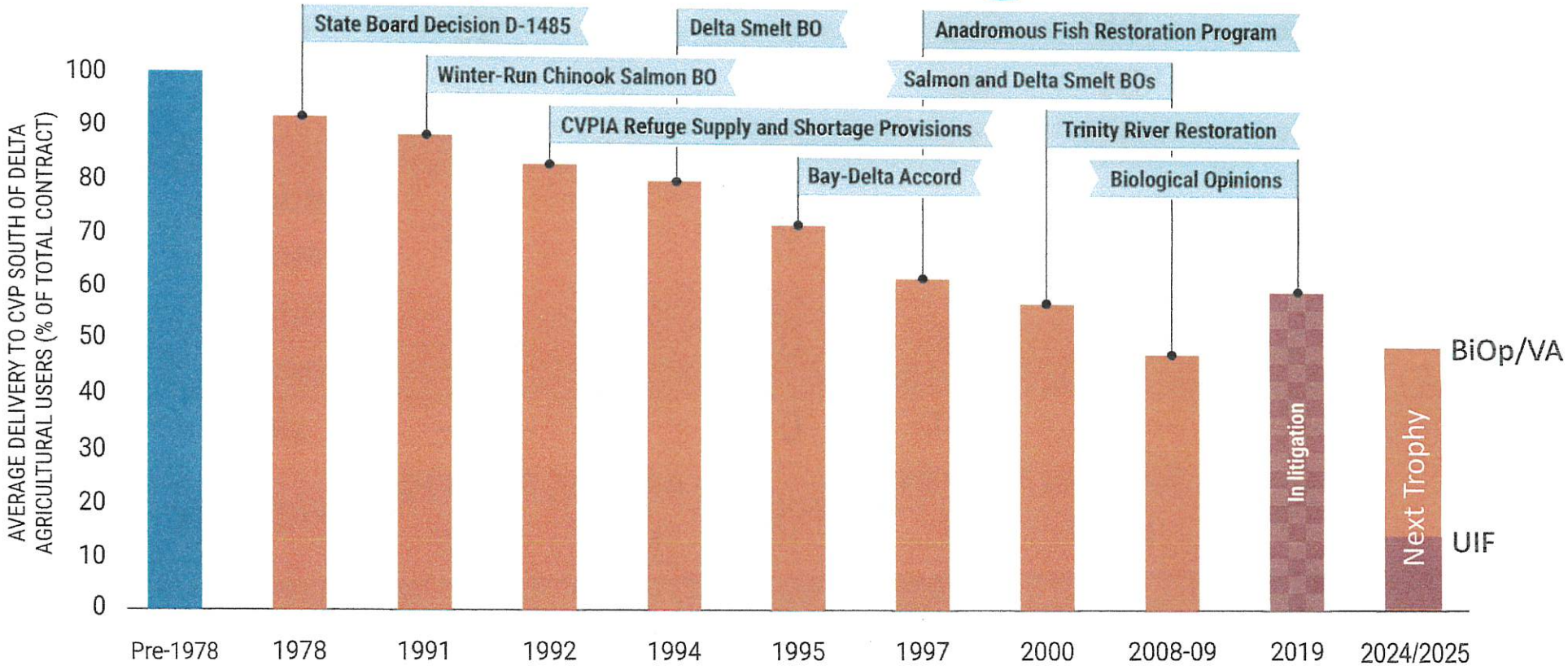
# Change in SOD CVP Deliveries

| | Proposed Action w/ VA | | | Unimpaired Flows | | |
|---|---|---|---|---|---|---|
| Year Type | Ag Service | M&I Service | Exchange | Ag Service | M&I Service | Exchange |
| Wet | -55 | 0 | 0 | -1077 | -51 | -3 |
| Above Normal | -112 | -1 | 0 | -955 | -56 | -5 |
| Below Normal | -120 | 0 | 0 | -771 | -58 | -41 |
| Dry | -133 | -3 | 0 | -520 | -56 | -52 |
| Critical | -42 | -1 | 8 | -64 | -12 | -59 |
| **All Years** | **-91** | **-1** | **1** | **-709** | **-48** | **-31** |

All values in 1,000 acre-feet relative to No Action Alternative

# The Squeeze of Regulation




*Sources: Pre-1978, CVP Water Delivery Records; 1978-2000, San Luis & Delta-Mendota Water Authority, extracted from various California Department of Water Resources (DWR) and U.S. Department of the Interior, Bureau of Reclamation (Reclamation) CalSim-II benchmark studies; 2008/2009, Reclamation & DWR CalSim-II Benchmark BO Study; 2020, Reclamation EIS on the Reinitiation of Consultation on the Long-Term Operation of the CVP and SWP.*

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