



## MEMORANDUM

TO: SLDMWA Water Resources Committee Members and Alternates

FROM: Scott Petersen, Water Policy Director

DATE: April 1, 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<sup>1</sup> 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<sup>2</sup>. 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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<sup>1</sup> <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/fact-sheet-list-of-agency-actions-for-review/>

<sup>2</sup> <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<sup>3</sup> 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

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<sup>3</sup> <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<sup>4</sup> on October 16.

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

### Current Milestones

- April 2024 – 2<sup>nd</sup> Cooperating Agency Draft EIS (2 week comment period)
- May-June 2024: Draft Biological Assessment/Biological Opinion
- Summer 2024 – Public Draft EIS
  - The public draft EIS will be the avenue for comments to Reclamation
  - Cooperating agencies will receive an administrative draft of the EIS
  - Anticipate a 45-day public comment period
- Fall 2024 – Final Biological Opinion
- Winter 2024 – Final EIS
- Winter 2024 – Record of Decision

**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. Timelines on the other consultations are unclear, but both are lagging the CVP/SWP consultation at this point in time.

## 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.<sup>5</sup> 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.

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<sup>4</sup> Request from Authority staff.

<sup>5</sup> Available at <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Blogs/Voluntary-Settlement-Agreement-Meeting-Materials-Dec-12-2018-DWR-CDFW-CNRA.pdf>.

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**Phase 1 Status:** The State Water Board adopted a resolution<sup>6</sup> 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.

Most recently, on July 18, 2022, the State Water Resources Control Board issued a Notice of Preparation (NOP)<sup>7</sup> 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 included in the draft EIR.

In response to the release of the NOP, the Water Authority and member agencies provided scoping comments<sup>8</sup>.

**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<sup>9</sup> 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.

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<sup>6</sup>Available at

[https://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/resolutions/2018/rs2018\\_0059.pdf](https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/rs2018_0059.pdf).

<sup>7</sup> Available at [https://www.waterboards.ca.gov/public\\_notices/notices/20220715-implementation-nop-and-scoping-dwr-baydelta.pdf](https://www.waterboards.ca.gov/public_notices/notices/20220715-implementation-nop-and-scoping-dwr-baydelta.pdf)

<sup>8</sup> Request from Authority staff

<sup>9</sup> Available at [http://resources.ca.gov/docs/voluntary-agreements/2019/Complete\\_March\\_1\\_VA\\_Submission\\_to\\_SWRCB.pdf](http://resources.ca.gov/docs/voluntary-agreements/2019/Complete_March_1_VA_Submission_to_SWRCB.pdf)

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.

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<sup>10</sup>.

Next steps include a planned workshop on the Agreements to Support Healthy Rivers and Landscapes from April 24-26, 2024, where detailed information about the current status of the Agreements will be presented.

### *Schedule*

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

- Winter/Spring 2024
  - 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

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<sup>10</sup> Request from Authority staff.

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

- Fall 2024: Response to comments and development of proposed final changes to the Bay-Delta Plan
- Winter 2024: 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<sup>11</sup> that advances integrated efforts to improve ecosystem and fisheries health within the Sacramento-San Joaquin Bay-Delta. State and federal agencies also announced an agreement<sup>12</sup> 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.

### *Delta Conveyance Project*

#### *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

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<sup>11</sup> Available at <https://resources.ca.gov/-/media/CNRA-Website/Files/NewsRoom/Voluntary-Agreement-Package-March-29-2022.pdf>

<sup>12</sup> 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/>

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](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 be filed by April 29, 2024, with a copy provided to the petitioner. Details regarding how to submit a protest can be found at: [https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/docs/2024/dcp-notice-of-change-petition.pdf](https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/2024/dcp-notice-of-change-petition.pdf)

## 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*

- [RCD 03-01 Reclamation Manual Release Procedures](#) (comments due 04/14/24)
- [CMP 08-01 Capital Investment and Repair Needs](#) (comments due 03/15/24)
  - [Feb 28, 2024 CMP 08-01 Public Outreach Session Slides](#)
- [PEC 05-03 Funding and Extended Repayment of Extraordinary Maintenance Costs](#) (comments due 12/21/23)
  - [Nov 30, 2023 PEC 05-03 Public Outreach Session Slides](#)

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

- There are currently no Instructions, Standards, and Techniques out 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.

SLDWMA staff submitted letters on CMP 08-01 and PEC 05-03, which are included in Appendix 1.

## 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. Hallmark’s revised scope for defined services and deliverables (Develop & implement a strategic plan to protect operational flexibility of the 2019 Bi Ops) has been approved and will run from 3/1-8/31 and has been approved by the Board, with consultation from an ad-hoc committee of public water agency technical and policy professionals.

- Urban Water Agency Partnerships: A draft letter agreement with Urban Water Agencies, including Metropolitan Water District and the Blueprint, is being reviewed which would include monetary participation and review and analysis of water storage and conveyance opportunities. Discussions have focused on mutual concerns/issues faced by water scarcity as well as opportunities for collaboration including recharge, conveyance, and funding.
- The Blueprint has been accessed to provide input at the Urban Water Institute’s Fall Water Conference in San Diego and the International Water Congress in Toronto. It includes leading water experts on today’s most pressing water management issues, representing a broad range of expertise and perspectives.

### *Technical Committee*

Two specific priorities/efforts to help bridge the water deficit in the San Joaquin Valley, the Patterson ID conveyance project, and Delta Operations have been selected. The committee is evaluating total recharge opportunities and potential environmental enhancement and utilization.

## Activities

### *Farmer to Farmer Summit – Second Session*

The second phase of the Farmer to Farmer Delta/SJV summit was held on January 29th and 30th and took place here in the Central Valley. The Summit was two nights, the first night in Bakersfield with a presentation and tour of the South Valley and the second night at Santa Nella with a presentation of the Westside and the San Luis unit. The group has agreed to focus on two priorities in the coming year: (1) the installation of a non-physical fish passage barrier at the Delta Cross Channel gates, and (2) South Delta Channel maintenance, including dredging.

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

The Blueprint and California Water Institute, Fresno State are developing a Unified Water Plan for the San Joaquin Valley, consistent with the Bureau of Reclamation grant<sup>13</sup>. Both Stantec and The Hallmark Group are helping develop the plan. The final water plan will include measures to address San Joaquin Valley needs and potential portfolios to address needs and objectives, this report will ultimately be transmitted to Congress by Reclamation in 2025.

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<sup>13</sup> For background presentation, see Appendix A.

Fresno State received another round of funding for a groundwater recharge feasibility study. It can include 4 counties (Madera, Tulare, Fresno, Kern). The study will also include a layer of flood plain analysis. Fresno State will be reaching out to districts and GSAs to gather information during the partnership.

The group is focused on multi-benefits for recharge with a focus on drinking water with measurable results.

### *Central Valley Community Foundation*

CA has engaged CVCF to develop an "inclusive 'community investment plan'" for Fresno, Madera, Tulare, and Kings Counties. It is a part of the State's "Jobs First" (formerly known as Community and Economic Resilience Fund) initiative, which has broken the state down into 13 economic regions and provided grant funding to civic organizations to engage a broad group of stakeholders to develop a "triple bottom line" (economy, environment, equity) economic development plan.

CVCF is working in partnership with the Urban Institute, Fresno State, United Way Fresno Madera Counties, Tulare Workforce Investment Board, and about 120+ community and civic leaders from the four-county region to develop this plan. They completed Phase I in 2023, which involved community engagement, outside learning, and developing the framework for our investment plan. Their framework identifies (1) three priority industry clusters for growth – "climate solutions" (includes clean energy generation and distribution), responsible food systems, and circular manufacturing; (2) essential infrastructure – water and broadband; and (3) community investment areas – education/skill building, community health, and small business development. Here is a link with information on the work so far: <https://www.valleycerf.org/resources>

They are planning an 8-week "investment plan sprint" in approximately May to June to get as much specificity as possible on the types of investments needed in each of these eight investment theme areas.

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

#### Background

The CAP Plenary Group adopted work groups to implement the CAP Term Sheet<sup>14</sup>, 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 March 26, to hear a presentation from John Watts about Reclamation engagement with the CAP, discussions around an updated decision making process advanced by the CAP, Proposition 218 legislation, and the Safe Drinking Water Needs Assessment updates by the State Water Resources Control Board. Additionally, during the upcoming April 8-9 Plenary in-person Plenary Group meeting, the White Paper<sup>15</sup> from the Water Supply Workgroup will be considered for adoption.

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<sup>14</sup> Request from Authority staff

<sup>15</sup> See Appendix A.

## **APPENDIX A**

**San Luis & Delta-Mendota Water Authority**



P.O. Box 2157  
Los Banos, CA 93635  
Phone: (209) 826-9696  
Fax: (209) 826-9698

***VIA ELECTRONIC MAIL***

March 22, 2024

Morgan Raymond  
Program Analyst  
Law Administration Division  
Bureau of Reclamation  
Denver Federal Center  
Denver CO 80225-0007

RE: Draft CMP 08-01 Capital Investment and Repair Needs

Dear Morgan:

On behalf of San Luis & Delta-Mendota Water Authority (“Water Authority”) this letter is in response to the Bureau of Reclamation’s (“Reclamation’s”) draft CMP 08-01 “Capital Investment and Repair Needs”.

The Water Authority is a public agency with its principal office located in Los Banos, California. It was formed in 1992 as a joint powers authority, to serve two important roles: 1) to provide representation on common interests of the Water Authority’s member agencies; and 2) to operate and maintain the Delta Division and south of Delta Central Valley Project (“CVP”) facilities, including the Jones Pumping Plant, the Delta- Mendota Canal (“DMC”) and the O’Neill Pumping Plant, that the Water Authority’s member agencies depend on for delivery of CVP water. Most of the Water Authority’s 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 the San Joaquin, Santa Clara, and San Benito Valleys, a portion of the water supply for nearly 2 million people in 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.

We largely concur with the comments submitted by the Central Valley Project Water Association (CVPWA). In addition to those comments, we make the following observations, all of which will require additional resources and time to implement:

Article 7.A requires a funding horizon of 30 years; the Water Authority currently manages projects on a horizon of 10 years per the terms of the transferred works agreement between Reclamation and the Water Authority. Development of a 30 year project horizon with cost estimates will take an unknown amount of time to complete .

Article 7.B has reference to advanced water user funding. This method of this funding source has yet to be developed between Reclamation and the Water Authority.

Article 7.C states that the project cost estimates must align with FAC 09-01; this would be incorporated into the transitional project to create a 30 year horizon which will take coordination between Reclamation and the Water Authority.

Article 8.A requires an annual certification on each of the projects that are identified on the CIRN by August 31. To the best of our knowledge, this currently isn't being done. The Water Authority will need to work closely with SCCAO and Regional Office annually to make sure the projects on the CIRN are appropriately prioritized, scheduled and the cost estimates are accurate prior to the August 31 deadline. A preliminary assessment and timeline is required to reach compliance.

Generally, the document makes sense but it is a directive that will require time to implement. The directive is silent as to a phase-in or transition period and we question if Reclamation has the resources to manage the D&S the way it is written.

Thank you for your consideration.

Sincerely,

*Pablo Arroyave*

Pablo Arroyave, Chief Operating Officer

Cc: Adam Nickels, CGB Principal Deputy Regional Director

**San Luis & Delta-Mendota Water Authority**



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***VIA ELECTRONIC MAIL***

March 22, 2024

Morgan Raymond  
Program Analyst  
Law Administration Division  
Bureau of Reclamation  
Denver Federal Center  
Denver CO 80225-0007

RE: Draft PEC 05-03 Extended Repayment of Extraordinary Maintenance Costs

Dear Morgan:

Thank you for the opportunity to provide comments on behalf of San Luis & Delta-Mendota Water Authority ("Water Authority") to the Bureau of Reclamation's ("Reclamation's") second draft revisions to PEC 05-03, "Extended Repayment of Extraordinary Maintenance Costs".

The Water Authority is a public agency with its principal office located in Los Banos, California. It was formed in 1992 as a joint powers authority, to serve two important roles: 1) to provide representation on common interests of the Water Authority's member agencies; and 2) to operate and maintain the Delta Division and south of Delta Central Valley Project ("CVP") facilities, including the Jones Pumping Plant, the Delta- Mendota Canal ("DMC") and the O'Neill Pumping Plant, that the Water Authority's member agencies depend on for delivery of CVP water. Most of the Water Authority's 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 the San Joaquin, Santa Clara, and San Benito Valleys, a portion of the water supply for nearly 2 million people in 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.

We largely agree with the comments submitted by the Central Valley Project Water Association (CPVWA), specifically as it relates to the draft update's requirement of an ATP study for repayment terms beyond 30 years. 43 U.S.C. § 510b(b)(1) allows for up to 50-year repayment. 43 U.S.C. § 510b(b)(1) does not specify an ATP study as the means for financial justification for requesting an extended repayment period, so it is limiting for the draft update to require an ATP study. We believe funding for critical infrastructure repairs will be delayed if extended repayment terms beyond 30 years are reliant on the requirement of the ATP study. The Water Authority requests this requirement be removed from the draft before it is formally adopted and replaced with some alternative financial justification method that we understand has yet to be developed. We welcome the opportunity to collaborate with Reclamation and the CVPWA in developing an

alternative method.

Thank you for your consideration.

Sincerely,

*Pablo Arroyave*

Pablo Arroyave, Chief Operating Officer

Cc: Adam Nickels, CGB Principal Deputy Regional Director



# Unified Water Plan for the San Joaquin Valley

**FRESNO**  
**STATE**

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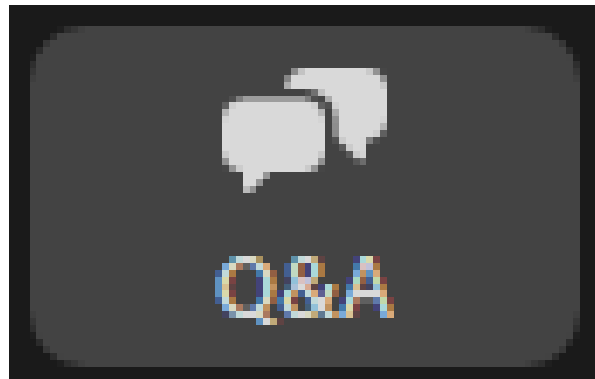
California Water  
Institute

**Water  
Blueprint**

for the San Joaquin Valley



If you have questions during the presentation,  
please click the Q&A button at the bottom of your screen.



# Agenda

1. Authorizing Legislation
2. Project Overview
3. Project Organization
4. Timeline
5. Task Descriptions
6. Discussion

# Authorizing Legislation

PART II of P.L. 111-11 (2009) authorized Reclamation to provide a grant to the California Water Institute for a study regarding the coordination and integration of sub-regional integrated regional water management plans into a **Unified Water Plan for Kern, Tulare, Kings, Fresno, Madera, Merced, Stanislaus, and San Joaquin counties** to address:

- (A) water quality;
- (B) water supply (both surface, ground water banking, and brackish water desalination);
- (C) water conveyance;
- (D) water reliability;
- (E) water conservation and efficient use;
- (F) flood control;
- (G) water resource-related environmental enhancement; and
- (H) population growth.

The Unified Water Plan will be a guide to address and solve long-term water needs in a sustainable and equitable manner.

Reclamation shall provide a report containing the results of the Integrated Water Plan to House of Representatives committees.



# Project Overview

The California Water Institute, Research and Education Division and the Water Blueprint for the San Joaquin Valley Education Fund (Blueprint) will work together to develop a Unified Water Plan for the San Joaquin Valley.

In consideration of the range of ongoing, at times disconnected, work to identify water management solutions for areas of the Valley, the **Unified Water Plan Report** (Report) will leverage available information and assets and describe an approach for the development of comprehensive regional solutions.

The intent of the Report is not to review or evaluate individual projects or efforts, but rather to coordinate and integrate among San Joaquin Valley subregions in the development of a unified plan for the San Joaquin Valley, one that enables and is consistent with local projects/efforts.

# Project Organization



## Task 2 – Stakeholder Engagement and Participation

- Regularly Engage Interested Stakeholder in Update Meetings
- Present and Facilitate Relevant Conversations at Blueprint Technical Work Group Meetings
- Identify other Regional Stakeholders
- Identify Established and Ongoing Stakeholder Forums to Present and Facilitate Relevant Conversations
- Conduct 2 Stakeholder Engagement Forums in Year 2

# Project Tasks and Timeline

Task 1:  
Project  
Administration

CWI



2023

Task 3:  
Prepare Report  
Introduction

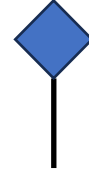
CWI



Task 2:  
Stakeholder  
Engagement  
CWI & Hallmark



Task 4:  
Define Existing and Future  
Conditions with No Action  
Stantec & Blueprint



Task 5:  
Compile Measures  
to Address Needs

Stantec & Blueprint



Task 6:  
Prepare Report  
CWI, Blueprint,  
Stantec



2025

# Task 3 – Prepare Report Introduction

## Consideration Factors

As specified by legislation, the following criteria will be considered while compiling information:

- A. Existing and Future Conditions
  - A. Water Quality
  - B. Water Supply (Surface Water and Groundwater)
  - C. Water Conveyance Infrastructure
  - D. Water Reliability
  - E. Water Conservation and Efficiency
  - F. Flood Control;
  - G. Water Resource-related Environmental Enhancement and
  - H. Population Growth
- B. Potential Changes in the Future
- C. Identify the Economic and Social Impacts of Existing Surface Water Supply



## Task 3 – Prepare Report Introduction

### Overview of 2016 Draft Report – Based on Integrated Regional Water Plans

- The Regional Water Management Planning Act (SB 1672) was passed by the Legislature in 2002.
- Several bonds incentivized regional water infrastructure and management solutions that improve self-sufficiency, reduce water use impacts, and support environmental protection and restoration.
- The 2016 Report was based on 19 IWRM reports available in 2014.
  - Nineteen IRWM regions were established in the San Joaquin Valley.
  - Each region developed a list of projects to address local needs, underscoring the value of integrated water data, conditions, facilities, goals and outcomes that were not available to individual entities, but collectively provide a structure to achieve regional goals.
  - The number one issue found in the assessment for the region was the lack of water reliability, either for surface water, groundwater, or both, depending on the location within region.

# Task 3 – Prepare Report Introduction

## Overview of 2016 Draft Report – Cont'd

- The 2016 report recommended several strategies learned over the 2010-2016 period to improve the development and management of local water supplies to meet water demands.
  - Prior experience was that individual agencies focused on their own needs.
  - Integrated regional water management groups have developed relationships, information and synergies that can be used to solve agreed-upon regional problems.
  - A lack of overall information and integration of management plans for water sources impedes the development of a comprehensive water budget for the region.
- **However**, the 2016 Report did not address the effects of SGMA compliance, which had been recently enacted but not yet implemented.

# Task 3 – Prepare Report Introduction

## Reasons for Update – Changes After the 2016 Draft Report was Prepared

- **2012-2016** – Severe drought resulted in unprecedented water delivery reductions to Central Valley Project and State Water Project water users in the San Joaquin Valley.
- **2014** – The State of California enacted the Sustainable Groundwater Management Act (SGMA).
- **2015** – Reclamation prepared an Investment Strategy for the San Joaquin River Restoration Program that identifies projects that can reduce or avoid water supply impacts from the release of Restoration Flows.
- **2016** – Reclamation prepared the Sacramento and San Joaquin River Basins Study, which quantified the potential effects of future climate change on water supplies in the Central Valley.
- **2019** – The Water Blueprint for the San Joaquin Valley was established to champion water resource policies and projects to maximize accessible, affordable, and reliable supplies for sustainable and productive farms and ranches, healthy communities, and thriving ecosystems in the San Joaquin Valley.
- **2020** – GSAs throughout the Valley submitted initial GSPs that describe long-term groundwater sustainability objectives and identify potential projects and management actions.

# Task 4 – Define Problems, Needs, and Potential Opportunities

## **Describe Existing and Future Conditions with No Action**

- Compile information from existing public documents
- Confirm intended use of data with originators
- Example – water demand and supply estimates in GSPs

## **Describe Range of Needs and Opportunities**

- Combine information to define needs
- Address uncertainty by presenting needs as ranges, not single values
- Confirm combination of data with originators

# Task 5 – Compile Measures to Address Needs (All Examples are for Water Supply)

## Identify Initial Project Concepts and Evaluate Completeness

- Organize projects by region and type
- Identify potential effectiveness (e.g. source and amount of water supply)
- Indicate level of detail in project description (conceptual --> planning --> design)

## Describe Potential Portfolios to Address Identified Needs and Objectives

- Develop portfolios by theme
  - Maximize use of local supplies
  - Opportunity for increased imported supplies
- Describe combined effectiveness in meeting needs and range of costs

## Develop Water Plan Implementation Approach

- Identify needs that can be address through existing Reclamation authorities
- Describe collaboration requirements for Regional or Valley-wide solutions

# Task 6 – Prepare Report

## **Prepare concise summaries of**

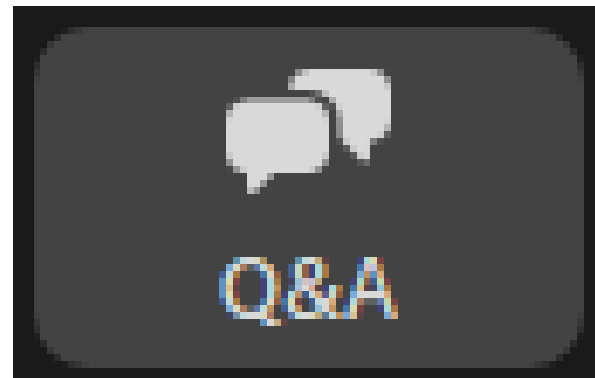
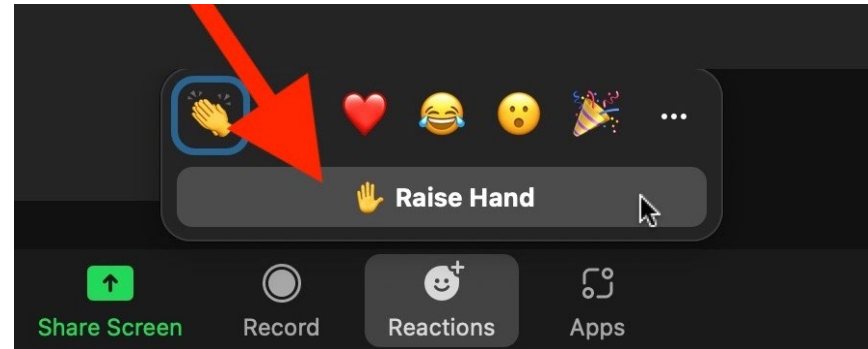
- Problems and needs
- Solution portfolios
- Potential Reclamation roles
- Regional approach to implement the plan

## **Incorporate Report into Water Blueprint for the San Joaquin Valley**

- Assure stakeholder input is reflected in report
- Provide to Blueprint committees for review and approval

# Questions?

Raise your hand!





**Thank you**

Contact us

Laura Ramos or Austin Ewell

Signup for updates: send an email to [cwi@mail.fresnostate.edu](mailto:cwi@mail.fresnostate.edu)



# Wet Year Surplus Water

Draft 3/15/24

## Overview and Approach

The CAP Sustainable Water Supply Workgroup was tasked to estimate the potential range of water available that could be utilized to address the supply-demand imbalance in the San Joaquin Valley consistent with the CAP Term Sheet. The Workgroup appointed a subgroup to develop the range. The subgroup agreed to accept, for purposes of discussion, the same regulatory outflow requirements as that in the analysis completed to support the Public Policy Institute of California (PPIC) Policy Brief, *Tracking Where Water Goes in a Changing Sacramento-San Joaquin Delta*, published in May of 2022 (“PPIC Report”).

During the preliminary discussions, the subgroup agreed on a workflow that separated flows originating from the San Joaquin River or its tributaries from flows originating from the Sacramento River or its tributaries in order to later engage a broader set of impacted stakeholders in the discussions around Sacramento River origin flows (**Figure 1**).

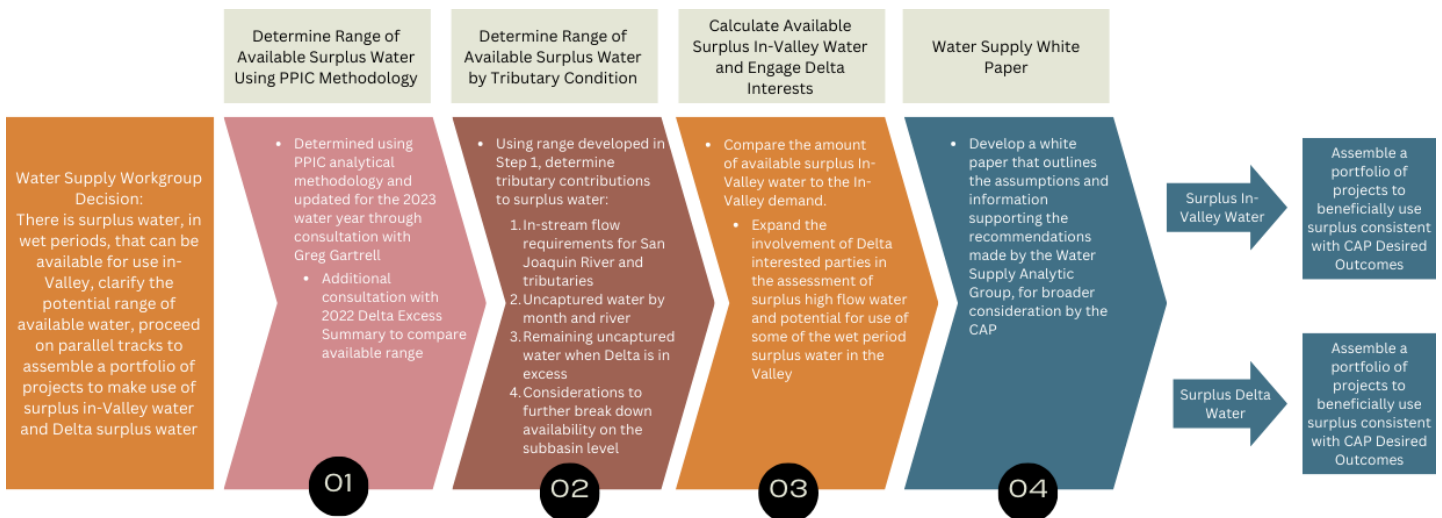


Figure 1: CAP Water Supply Process Diagram

This approach allows the CAP to consider potential actions to be undertaken with flows originating in the San Joaquin Valley while performing further analytical work on Sacramento River origin flows. To ensure the range did not “double count” San Joaquin River origin flows, it was important to ensure alignment in the approach taken to develop San Joaquin River origin flows from the estimate of flows available from the Delta described in the PPIC Report. Additionally, this approach created an opportunity to engage with recent work performed by the Department of Water Resources (DWR) and MBK Consulting Engineers to assess the availability of San Joaquin River and tributary origin flow available for recharge, which is summarized in a memo titled “Estimate of Available San Joaquin River Flow for Recharge” (“DWR Study”).

This memo describes studies consulted to date for developing an estimate of available flow for use in meeting the Desired Outcomes detailed in the CAP Term Sheet and recommendations for work to be performed by the Workgroup during 2024.

## Major Conclusions

1. These two studies demonstrate that, in wet years, there is sufficient water available within the Delta watershed to meet the regulatory requirements during the period of the analysis and that there is uncaptured water that could be available for use in the San Joaquin Valley to achieve the CAP's Desired Outcomes. Water in the Valley could be used through diversions upstream of the Delta or through removing physical system capacity limitations that reduce Delta exports. As described in the CAP Term Sheet, the PPIC study indicates that between 400 and 800 TAF of water from the Delta is available in wet years (exclusive of water that might also be captured upstream). To further support this opportunity in the San Joaquin Valley, a DWR analysis indicates that an average annual wet year availability is approximately 775 thousand acre-feet (TAF). The total annual volume available during wet years is highly variable and ranges from zero to over seven (7) million acre-feet. The variability is due to conditions resulting from the preceding water year and, reservoir conditions at the start of the new water year, and of course annual variability in precipitation. The DWR analysis considers protections for the CVP and SWP operations and regulatory requirements for flow and water quality conditions in the Delta to estimate available SJR flow.
2. Importantly, the studies demonstrate that water availability during wet years is not the limiting factor for increasing diversions for in-Valley use, either from diversions within the San Joaquin River watershed or increases in Delta exports. Instead, the limiting factor is the diversion and storage capacity of projects within the San Joaquin River watershed and the capacity for conveyance and storage of Delta exports south of Delta.
3. Forthcoming changes in regulations and changes in climate will significantly affect how much water is available during what time period, although current proposals would not affect wet year results, as wet years may include significant periods of flood conditions in the San Joaquin watershed. While further research and analysis are important to better understand this variability and its impacts, the subgroup does not think it necessary to wait for additional analysis to move forward.
4. These analyses do not evaluate the full-face value of existing water rights, and water rights would have to be considered to understand better what water is legally available in the San Joaquin River watershed. The subgroup does not intend to complete a robust water availability analysis to determine the amount of unappropriated water.

## Terms and Phrases to Consider

- “Surplus” is meant to describe water that is present in the system that is beyond the current regulatory flows required for ecosystems, water quality, etc. The term surplus does not imply that all potential needs or beneficial uses are being met in tributaries and upstream of the Delta, but rather that there is water available that is in excess of what is needed to meet regulatory flow requirements but goes uncaptured through the watershed and leaves the Delta. (Note: some regulatory requirements like water for wildlife refuges are not currently be met.)
- “Regulatory Baseline” reflects the agreed approach on which the CAP will base decisions and discussions. This is consistent with the baseline conditions utilized in the PPIC study. This would mean that discussions and recommendations are made considering the existing regulatory environment. While the subgroup recognizes the ongoing discussions about the Voluntary

Agreements (VAs), the impacts of the implementation of functional flows or VAs would not impact the amount of available water during flood conditions when most excess water is available.

- “Diversion(s)” reflects the use of surface water, either through actual diversion or inundation of existing or restored floodplains. The term “diversion” as used here does not differentiate between the ultimate beneficial use of the water or the legal basis through which the water is taken.

## Summary of Analyses

### PPIC Report

#### Overview

The PPIC Report originally considered data for 1980-2016 (Gartrell et al. 2017) and was later expanded to include data from 2017-2021. There is discussion on the policies and management decisions that affect where water is used, including the federal Water Infrastructure Improvements for the Nation (WIIN) Act and 2008-9 Record of Decision on the Long-Term Operations of the Central Valley Project (“CVP”) and State Water Project (“SWP”), the associated 2009 Biological Opinions from the U.S. Fish and Wildlife Service and National Marine Fisheries Service, and the CDFW ITP (the more recent 2019 BiOp did not affect the 2019 analysis because it was implemented in the fall, water year 2020). The report provides details on a very dry water year, 2021, with measures taken to reduce outflow while maintaining water quality, and a very wet year, 2017, with potential opportunities to increase exports from the Delta while remaining consistent with the environmental baseline. The analysis includes the entire Delta watershed, including both Sacramento and San Joaquin River origin flows, and the update provided a more aggregated methodology for attributing water use through the Sacramento and San Joaquin River watershed. This includes how much water does not reach the Delta due to upstream diversion and use and how changes in reservoir operations impact potential surplus water availability.

Importantly, the PPIC Report is not written with the explicit intention of defining a range of excess flows that could be captured through upstream in-Valley diversions or Delta exports for in-Valley use. However, the methodology and results of the report provide general information that supports that there is excess water available in wet years (specifically, 2011, 2017, and 2019) for diversion while meeting the environmental baseline if physical system limitations were improved.

#### General Methodology

The PPIC Report estimates excess “Uncaptured Outflow” that would be available for diversion either upstream of the Delta or for export from the Delta while meeting the environmental baseline. The PPIC Report defines uncaptured outflow as the following:

Outflow above that is required for system outflow and ecosystem outflow, including export limits. Most uncaptured outflow is beyond the physical capacity of the export facilities to take the water; in some situations, exports are occurring below authorized export limits, and there is capacity in the aqueducts but nowhere to put the water.

For the purposes of what the CAP is considering, this uncaptured outflow value is used as the determining factor for the water available for diversion upstream of the Delta or as additional export through the

pumping facilities if physical system capacity limitations are lessened or removed. The approach utilized by PPIC for characterizing water in the Delta can be summarized into the following four-step process:

1. Water is tracked from its origin to outflow accounting for use by cities and farms, including water stored and released from reservoirs and used upstream of the Delta and water exports and in-Delta uses.
2. Water is assigned for any day where there are flow and water quality regulations for exports and in-Delta uses (“system outflow” in the analysis) and further parsed into the categories of outflow to maintain water quality for exports, in-Delta municipal and industrial, and in-Delta agriculture.
3. Determine the additional water, on top of system outflow, needed to meet regulations that protect endangered species and the ecosystem (“ecosystem outflow” in the report), and further parsed for different regulations, including export restrictions for fish species.
4. Calculate the inflow that exceeds the system and ecosystem needs and get the resulting Delta outflow, resulting in the uncaptured outflow.

### Caveats and Assumptions

A general caveat in the analysis is that the water necessary for system and ecosystem outflows does not always impact the ability to export water through the Delta pumps. When there is a sufficient volume of uncaptured outflow, the water needed for salinity and flow standards may not require tradeoffs with export pumping as there is sufficient water to meet all needs. In these cases, diversions are typically limited by export pumping capacity or a lack of physical capacity within the south-of-Delta water infrastructure system to convey and deliver uncaptured outflow. Alternatively, ecosystem regulations that limit export pumping may reduce exports even if there is uncaptured outflow; in this case, available export capacity is limited to the daily exports that were less than the export limit, if any (usually there is none).

When determining the required ecosystem outflows, the PPIC Report considered various levels of regulation. A methodology was developed to attribute water under these regulations for comparison and determination in the applicable years. In general, the following regulations were considered:

- D1485 (1978-94)
- D1641 (since 1995)
- Endangered Species Act Biological Opinions (BiOps) (since 1993, revised in 1995, 2008-09)<sup>1</sup>
- Central Valley Project Improvement Act (CVPIA, since 1992)
- Vernalis Adaptive Management Program (VAMP, 2000-11)
- The 2019 BiOps did not affect any of the wet years included in the PPIC analysis.

### Results

The PPIC Report indicates that uncaptured outflows are typically present when Delta inflow exceeds all demands in the Delta, including in-Delta uses, exports, system outflows, and ecosystem outflows. This occurs most often during winter high-flow pulses or periods with high snowmelt runoff, and reservoirs are spilling water. There can also be uncaptured outflow in wet years when export pumping is reduced to

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<sup>1</sup> ESA BiOps were also updated in 2019, but that baseline was not utilized in the analysis due to the timing of the rollout during the applicable period.

levels below those allowed by regulation. This typically occurs when there is a lack of capacity in CVP and SWP aqueducts or when current south-of-Delta storage is at capacity.

The PPIC Report indicates that a total of **400 to 800 thousand acre-feet (TAF)** of additional water is available in wet years for diversion or export from the Delta watershed while meeting the environmental baseline. This study examined how much water could be captured and pumped at the export facilities. It did not include the flows that could be taken upstream. For example, in 2017, up to almost 1 MAF could have been diverted upstream (reducing flood risk) in addition to that which could have been pumped with the excess capacity at the export pumps, bringing the total available to well over 1.5 MAF.

## DWR Study

The Department of Water Resources (DWR) contracted with MBK Engineers to complete an estimate of available San Joaquin River Flow for Recharge (DWR Study). The results are an estimate of the flow in the San Joaquin River, measured at Vernalis, that exceeds monthly water demands and existing regulatory requirements.

## General Methodology

The study utilized the CalSim 3.0 model to estimate monthly water demand based on land use and other model inputs. The study provides results for the average monthly available San Joaquin River flows by water year type and an average annual volume available by water year type.

A second analysis estimated the available volume of water at Vernalis after the diversion of water upstream of Vernalis within the tributaries or upper San Joaquin River, which considers the full diversion capacity at points of diversion to estimate current maximum in-valley use. This analysis tries to differentiate between what water may be used in Valley and what water flows to the Delta.

## Caveats and Assumptions

The DWR analysis utilized four criteria to set the conditions under which water was determined to be “available” in the modeling and estimation of water quantity:

1. Delta outflow is in excess of the required Delta outflow
2. Vernalis flow is above the minimum flow requirements
3. Vernalis water quality standard is met
4. Consideration of the following restrictions on Delta exports:
  - a. Old and Middle River flow requirements
  - b. Actions in the SWP Incidental Take Permit (ITP)
  - c. SJR inflow-to-export (I/E) requirements under Biological Opinions and Decision 1641

The DWR Study acknowledges that the CalSim 3.0 model does not assume that surface water diverters are using the full-face value of their existing water rights and, therefore, does not provide an estimation of the amount of unappropriated water in the San Joaquin River system. Consequently, it could not be used to support a water availability analysis for an appropriative water right application.

The second analysis, including the upstream diversion capacity in tributaries, utilized assumed maximum diversion capacities for each tributary, which is summarized in the table below.

Table 2: Assumed Diversion Capacity Utilized in DWR Study

River	Diversion Capacity (cfs)
Upper San Joaquin	6,750
Fresno	300
Chowchilla	370
Merced	1,900
Tuolumne	3,215
Stanislaus	1,800

## Results

The first analysis estimates that the average annual San Joaquin River flow available for diversion is approximately 775 TAF in wet years. Within that, approximately 579 TAF of water is available in the months of January through March. The total annual volume available during wet years is highly variable and ranges from zero to over seven (7) million acre-feet. The variability is due to conditions resulting from the preceding water year, reservoir conditions at the start of the new water year, and of course annual variability in precipitation.

The second analysis estimates that the average annual available San Joaquin River flow is approximately 281 TAF in wet years after maximizing diversions at all existing diversion points (a proxy for estimating current, maximum in Valley uses). Within that, approximately 236 TAF of the water is available in the months of January through March. The total annual volume available during wet years ranges from zero to approximately 3.2 million acre-feet.

Important takeaways for the CAP from the study include:

- Findings of wet year water availability are similar between PPIC and DWR study with significant variability in wet year water availability, depending on wet year conditions and the prior year end-of-year storage conditions.
- Existing regulatory requirements for Delta conditions significantly limit water availability in the San Joaquin River watershed.
- Results of both studies indicate “physical” water available in the system, not “legal” water available. “Legal” water available will be a smaller number than those presented here (DWR and MBK are working on further analysis to understand this better).
- Better management during wet years, especially January through March, is needed to take advantage of when water is available and at times when there are fewer demands on the system.

## How the Studies Interact

These two studies reach compatible conclusions on the availability of excess water in the Delta watershed without impacting operations. The PPIC Report considers the Delta watershed, while the DWR Study considers the amount of San Joaquin River water available for diversion as measured at Vernalis. These studies and their conclusions can likely be used in tandem to support the goals of the CAP in determining the amount of water that may be available for use in the San Joaquin Valley.

Through the analysis and numerous discussions with the lead author Greg Gartrell, the PPIC Report shows that, in wet years, diversions of water upstream of the legal Delta (often referred to as “in-Valley” diversions by CAP members) could occur without impacting flows required through the Delta, because

there is so much excess water available. Under these circumstances, the limiting factor on diverting water in Valley is the physical capacity of diversion facilities to move water to storage and available storage, and not the instream flow requirements. The results of this analysis also indicate that there could be the opportunity for additional Delta export pumping during wet years when there are uncaptured outflows if there was more south-of-Delta storage.

The DWR Study focuses specifically on water potentially available within the San Joaquin River watershed for diversion for recharge by utilizing flow thresholds at Vernalis and considering potential demands throughout the system. The secondary DWR analysis also considers the amount of water that would potentially be available at Vernalis, given the maximum capacity of upstream diversions from the San Joaquin River tributaries and upper San Joaquin River. This supports the assertion that water is available within the San Joaquin River watershed without impacting Delta outflow requirements.

## Next Steps

The subgroup recommends the CAP Water Supply Workgroup review and discuss the findings of this memo and consider the following actions:

1. Evaluate and recommend an approach through which this uncaptured water may be captured and utilized, including through existing water rights, natural inundation of floodplains, administrative changes to the water right process, permitting and appropriation of legally available water, etc.
2. Identify ways to (a) maintain export capacity in conveyance facilities and (b) increase south-of-Delta water storage are critical components of capturing surplus flood flows for beneficial use.
3. Identify (a) the additional diversion, conveyance, and recharge capacity needed to capture high flows in the San Joaquin Valley not needed for environmental purposes and (b) additional recharge capacity needed to utilize uncaptured Delta flows available under existing regulations. Note that this identification can also provide information on reduction in downstream flood risk.
4. Determine the amount of available water by tributary conditions. The DWR study set the stage for some of this work and highlighted key areas the CAP should consider. The determination of available water by the tributary condition could be followed by comparing water available for in-Valley use and the in-Valley demand. The studies referenced to date do not consider the licensure and actual use of existing diversions within the San Joaquin River and tributaries.
5. Water right permitting, under existing procedures, can include the Water Board's streamlined process for diversions in December through March, the period which the DWR study indicates is when most uncaptured water is available.
6. The CAP could assess how Area of Origin laws may influence the implementation of the proposal to use more water upstream of the Delta and through Delta exports for recharge.