



Official Memorandum

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To: SLDMWA Water Resources Committee Members and Alternates
From: Scott Petersen, Water Policy Director
Date: May 11, 2026
RE: Update on Water Policy/Resources Activities

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) Implementation of Long-Term Operations of the Central Valley Project and State Water Project, including environmental compliance; (2) State Water Resources Control Board action; (3) Central Valley Regional Water Board Action, (4) San Joaquin River Restoration Program; (5) Delta conveyance; (6) Reclamation action; (7) Delta Stewardship Council action; (8) San Joaquin Valley Water Blueprint, and (9) San Joaquin Valley Water Collaborative Action Plan.

Policy Items

Implementation of Executive Order 14181

On January 2024, President Trump issued Executive Order 14181¹, directing analysis of potential changes to the operations in the 2024 Record of Decision (“ROD”) for consideration by the Administration. On December 4, 2025, Reclamation executed a Record of Decision on the Long-Term Operations of the Central Valley Project and State Water Project, as a first step towards implementing EO 14181.

Implementation of 2024 Record of Decision on Long-Term Operations of the Central Valley Project and State Water Project

On December 4, 2025, Reclamation executed a Record of Decision² on the Long-Term Operations of the Central Valley Project and State Water Project, as a first step towards implementing EO 14181, updating operations associated with the Record of Decision executed by Reclamation and the Biological Opinions issued by the Fish and Wildlife Service and NOAA Fisheries in December 2024. This new operation is described as “Action 5”.

Specifically, the Action 5 ROD updates the operations of the Projects by:

- (1) **Removing the Delta Smelt Summer and Fall Habitat Action (Fall X2)**, in response to findings by the U.S. Fish and Wildlife Service that the action is not anticipated to have observable effects on delta smelt survival,

¹ <https://www.govinfo.gov/content/pkg/FR-2025-01-31/pdf/2025-02174.pdf>

² https://www.usbr.gov/mp/nepa/nepa_project_details.php?Project_ID=54661



- (2) **Removing the early implementation measure of the Delta export reduction of the Healthy Rivers and Landscapes (“HRL”) program**, in response to uncertainties associated with the timing of potential adoption and implementation of the HRL Program by California’s State Water Resources Control Board,
- (3) **Updating the Delta operating criteria** to expand the opportunities for Old and Middle River (“OMR”) management at no more negative than -5,000 cubic feet per second (cfs), and a stormflex action of -6,500 cfs, including the use of predictive tools for real-time assessment of environmental conditions.

Modeling of these proposed operational changes has estimated between 250 – 400 TAF improvement in combined CVP and SWP export capacity under Action 5 operations, with the SWP benefits being uncertain based on how the SWP operates under the Incidental Take Permit required for compliance with the California Endangered Species Act.

There is additional analysis being performed to assess the efficacy of additional potential operational changes that could improve water supply and maintain species protections, as well as alternative methods to address environmental effects on species listed under the federal Endangered Species Act (“ESA”) and advance species recovery efforts.

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

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.³ 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.

³ Available at <https://water.ca.gov/-/media/DWR-Website/Web-Pages/Blogs/Voluntary-Settlement-Agreement-Meeting-Materials-Dec-12-2018-DWR-CDFW-CNRA.pdf>.



Phase 1 Status – San Joaquin River and its Tributaries

The State Water Board adopted a resolution⁴ 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.

On July 18, 2022, the State Water Resources Control Board issued a Notice of Preparation (NOP)⁵ 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).

In response to the release of the NOP, the Water Authority and member agencies provided scoping comments⁶ and the State Water Board is working through a long-term process to address Phase 1 elements of the Water Quality Control Plan Update.

A long delay in Phase 1 action occurred as legal activity was undertaken.

Recently, on September 19, 2025, the State Water Resources Control Board (Board) released a [Notice of Opportunity for Public Comment and Workshop on the Draft Scientific Basis Report Supplement for the Tuolumne River Voluntary Agreement](#) Proposal (Draft TVA Scientific Basis Report), to which the Water Authority provided comments⁷.

Next Steps

- 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

Phase 2 Status – Sacramento River and its Tributaries and Bay-Delta

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.

Revised Draft Sacramento/Delta Updates to the Water Quality Control Plan

Background

In July, the Board released a draft Bay Delta Plan (July 2025 revised draft), which included proposed changes to the draft Bay Delta Plan released in October 2024 (2024 draft), based on public input and comments

⁴ Available at https://www.waterboards.ca.gov/board_decisions/adopted_orders/resolutions/2018/rs2018_0059.pdf.

⁵ Available at https://www.waterboards.ca.gov/public_notices/notices/20220715-implementation-nop-and-scoping-dwr-baydelta.pdf

⁶ Request from Authority staff

⁷ Request from Authority staff



received throughout the planning process, including comments on several options for possible changes to the plan identified in the 2024 draft. Specifically, the 2024 draft identified the possible inclusion of flow, cold water habitat and related provisions that were based on the proposed Plan amendments and alternatives identified in the 2023 draft Staff Report in support of updates to the Bay Delta Plan, as well as options for these provisions. The 2024 draft also identified the possible inclusion of Voluntary Agreements (VAs) to provide flows and non-flow habitat proposed by state and federal agencies and water users referred to as the Healthy Rivers and Landscapes proposal, as well as options associated with inclusions of VAs. The regulatory provisions would apply to all water right holders if the Board did not move forward with VAs, or in the event the Board moved forward with VAs would apply to water rights not participating in approved VAs. The 2025 revised draft proposes to move forward with the inclusion of VAs in the Bay Delta Plan for water rights included in approved VAs (VA pathway) and the regulatory provisions for water rights not included as part of approved VAs (regulatory pathway). The 2025 revised draft also includes proposals for addressing other options identified in the 2024 draft. The 2025 revised draft also proposes the designation of Tribal Tradition and Culture (CUL) beneficial use as part of the current Bay Delta Plan update.

Current Activity

On September 16, 2025, the State Water Resources Control Board (State Water Board or Board) rescinded the August 22, 2025 Second Revised Notice of Opportunity for Public Comment and Hearing on Revised Draft Sacramento/Delta Updates to the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed (Bay-Delta Plan or Plan). The Rescinded Notice is available on the [Board's website](#). Accordingly, the hearing previously scheduled for September 24-25, 2025, and the associated public comment period are cancelled and will be rescheduled to a future date.

Instead, the Board has released a revised Bay-Delta Plan, with workshops that occurred on January 28-30, and written comments due on February 2. Water Authority staff coordinated written comments⁸ with member agencies and other interested parties.

Additionally, the State Water Board has received term sheets for additional voluntary agreements from Nevada Irrigation District (NID) and South Sutter Water District (SSWD) specific to the Bear River, Yuba River, and Auburn Ravine that are available to the public.

Water Rights

Water Accounting, Tracking, and Reporting System (CalWATRS) Launch

The State Water Resources Control Board has launched the California Water Accounting, Tracking, and Reporting System (CalWATRS). A link to the new system and additional information is posted on the [CalWATRS webpage](#).

If you have questions or would like the CalWATRS team to attend an event in your area, please email CalWATRS-help@waterboards.ca.gov.

⁸ Request from Water Authority staff.



San Joaquin River Restoration Program

Restoration Allocation

On April 20, Reclamation issued an update to the 2026 Restoration Allocation and Default Flow Schedule⁹. Consistent with the Restoration Flows Guidelines and based upon the best available forecast information, the Restoration Allocation covering the period March 1, 2026 through February 28, 2027 **is set at 282,547 acre-feet at Gravelly Ford and is a Normal-Dry year type.**

The Restoration Administrator recommended a flow schedule¹⁰ on May 4, which Reclamation is reviewing at the time this memo was drafted. This Restoration Allocation will be posted on the Program website in the coming days: <http://RestoreSJR.net>.

For Information about Restoration Flows, please visit <https://restoresjr.net/flows/>.

For the Restoration Administrator recommendations, please visit <https://restoresjr.net/flows/flow-scheduling/>.

Delta Conveyance Project

Delta Plan Certificate of Consistency

California officials proposed upholding the state's approval of the Delta Conveyance Project in a draft decision on April 20, rejecting most of the legal challenges brought by opponents while ordering a redo on two environmental issues that could complicate the project's path forward.

The Delta Stewardship Council voted 6-1 on April 23 to deny most of the appeals of the Delta Conveyance Project's Certification of Consistency with the Delta Plan. The [Delta Protection Commission's appeal](#) was among those denied.

The lone dissenting vote was by Councilmember Diane Burgis, a Contra Costa County supervisor who is also chair of the Delta Protection Commission. In her work on the Commission, Burgis has recused herself from all votes and discussions about the project.

On two appeals, the Council sent the project back to the Department of Water Resources to address 1) the improvement of habitat conditions for the nonnative invasive golden mussel, and 2) potential conflicts involving the Delta Conveyance Project's Twin Cities Complex and Sac Sewer's Harvest Water.

[Read the Council's decision here](#). Read press releases about the decision from the [Governor's Office](#), the [Department of Water Resources](#), and [Restore the Delta](#).

⁹ Request from Water Authority staff.

¹⁰ Attached



U.S. Bureau of Reclamation

Reclamation Manual

Documents out for Comment

Draft Documents

- [LND 09-01 Land Records](#) (comments due 05/01/26)
- [CMP 11-01 Title Transfer for Reclamation Project Facilities](#) (comments due 05/09/26)
 - [CMP 11-01 Redlined Version](#)

San Joaquin Valley Water Blueprint

The Water Blueprint represents water users, districts, farmers, and municipalities across the Central Valley. Their problem statement is crystal-clear; California faces a major water supply shortfall that could affect one million acres, costing \$7.2 billion in farm revenue and 85,000 jobs statewide. Engaging various stakeholders inside and outside the Central Valley, the team advocates for a combination of infrastructure investments and policy changes to capture excess flows during wet years and replenish aquifers.

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.

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

Board Expansion and Executive Committee Formation

The leadership group discussed potential updates to board structure, including filling an open director seat, exploring board expansion, and evaluating whether to formalize an executive committee. The group discussed proposed candidates for the vacant director position. The group proposed forming a small ad hoc committee to develop draft bylaw language addressing both board expansion and executive committee formation. These materials will be brought back to leadership and ultimately to the full board for review.

Strategic Planning

The leadership group discussed the need to launch a strategic planning process following completion of the United Water Plan, noting that the current plan runs through 2025 or early 2026. The conversation highlighted the importance of defining the scope of future organizational activities—including legislative advocacy, policy, and communications—and engaging the board early to help shape direction for the latter half of 2026.

CSU Water Webinar Series – CA Legislature and Water Policy

The Executive Director of CSU-WATER, a CSU system affinity group that serves to foster future leaders in California through water education, research engagement and networking for the nearly 500,000 students in the CSU system as well as inclusion of those in the CC & UC systems. The Blueprint was invited to contribute to the CSU-WATER Webinar Series on the CA Legislature and Water Policy, topics covered in the webinar series: Making Waves, Water Policies & Workforce Needs, Current water policy issues & workforce needs and Future Water Management and Policies; Leadership Needs, Future water management and climate resilience.



SB72 Implementation

Senate Bill 72 (Caballero) directs DWR to consult with the Water Commission on the establishment of an advisory committee to inform the development of the 2028 update to the Water Plan. The 2028 update will usher in a new emphasis on setting and meeting quantifiable water supply goals. This builds on California's Water Supply Strategy (2022), which outlined necessary actions for the state to adapt to a hotter, drier future where the changing climate leaves less water to meet California's needs. Blueprint as an interested party in the State's water supply strategy, has been provided with the opportunity to present and provide public comment.

Unified Water Plan

The Water Blueprint's unified water plan is moving forward with chapters 1, 2, 3, 4 & 5 for review. The plan quantifies the San Joaquin Valley's massive water supply gap at 2.5-3 million acre-feet by 2040, incorporating SGMA compliance needs, climate change impacts, and environmental flow requirements. The full administrative draft expected by this summer.

Unified Water Plan Chapters 5 Released for Review

Stantec presented detailed progress on potential water supply projects (Chapter 5). Chapter 5 catalogs over 800 projects from GSPs across 16 sub-basins, with groundwater recharge projects comprising nearly half of all proposed projects. Unit costs range from \$50-\$300 per acre-foot for various recharge methods.

- **Major Supply-Demand Gap Identified Requiring Immediate Action:** Technical analysis reveals the valley faces a future water shortage of 2.5-3 million acre-feet by 2040, driven by SGMA compliance requirements (1.4-2 million acre-feet), environmental restoration needs, climate change impacts, and groundwater replenishment requirements. This massive gap demonstrates the critical need for comprehensive water infrastructure investments and management changes.
- **Recharge Projects Dominate Solutions:** The latest research points out that nearly 50% of all GSP projects are groundwater recharge projects, including on-farm recharge, injection wells, in-lieu recharge, and constructed basins, with injection wells being the most cost-effective option.

Water Blueprint SJV & CWI – Unified Water Plan

The purpose of the Unified Valley Plan for the San Joaquin Valley is to identify and present possible solutions for long-term water needs in the San Joaquin Valley by bringing together existing water plans, strategies, and knowledge from across the San Joaquin Valley into one coordinated, valley-wide planning framework.

Bureau of Reclamation Report to Congress:

- Chapter 1 Introduction
- Chapter 2 Overview of the water resource needs and opportunities in the San Joaquin Valley.
- Chapter 3 Overview of flood risks and management in the San Joaquin Valley and opportunities for improving flood management.
- Chapter 4 Illustration of an environmental vision for the San Joaquin Valley and estimates of the water supplies needed to implement that vision.
- Chapter 5 Evaluation of a range of potential solutions.
- Chapter 6 Recommendations for a path forward and a roadmap for implementation. Includes policy recommendations.



San Joaquin Valley Water Collaborative Action Program (SJV CAP)

Background

The CAP Plenary Group adopted work groups to implement the CAP Term Sheet¹¹, 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 Bureau of Reclamation is currently funding the CAP. This funding supports its management and facilitation of the overall CAP process and the development of a prioritization tool. The tool is envisioned to be used by CAP participants, federal and state agencies, other stakeholders, and the public to evaluate policy recommendations, programmatic changes, and projects to achieve sustainable water management in the San Joaquin Valley.

The Steering Committee created a subgroup and will review several prioritization tools developed by other organizations and use those examples to craft a work plan and initial set of criteria for consideration.

CAP Workgroups for 6-Month CAP Priority Actions

ILRP and CV-Salts

1. Review changes to the ILRP and CV-SALTS updates and recommend improvements to the SWRCB and the Regional Water Quality Control Boards.
2. Better coordination between GSAs and the Nitrate Program to maximize water quality testing for multiple purposes.
3. Consider a pilot area to evaluate the potential for information sharing and integration.
4. The regulations should consider identifying targets for nitrates and other COCs so progress can be evaluated.
5. CAP could look to privately solicit information on fees across different programs to look at the potential for fee harmonization.

Land Transition

1. Support CDFW implementation of Regional Conservation Investment Strategies to support mitigation projects.
2. Use the experience and results of MLRP Round 1 and 2 to provide feedback on MLRP Round 3 guidelines to the Department of Conservation to ensure effective implementation of the program, including the provision of meaningful community benefits.
3. Develop guidelines to address workforce challenges associated with land transition, especially related to rural communities.

¹¹ Request from Authority staff



4. Advocate for infrastructure funding and regulatory changes to accelerate large-scale solar projects, as one avenue to help support the transition of agricultural land and reduce water demand in a manner that protects communities over the long term.
5. In collaboration with the S2J2 Catalyst Project, for ecosystem restoration, create a near-term and long-term vision and set of objectives for ecosystem restoration, and advocate for funding by the state and federal governments
6. Develop best practices for data centers and water use, which could inform the approval of data centers by state and local governments

SGMA Implementation

1. Complete Kaweah economic analysis and recommend improvements for SGMA implementation to the Governor, Legislature, and Department of Water Resources
2. Complete assessment of some other subbasins in the S2J2 geographic area and revise investment recommendations to S2J2 and advocate high-impact investments for funding through Prop 4.
3. Define key attributes for the successful implementation of GSPs for DWR to support in their guidelines for Prop 4 funding.
4. Track DWR subsidence best management practices and recommend improvements for implementation to DWR.

Water Supply

1. Support funding of projects and operational changes during high flow events that meet environmental regulations in the Delta and improve Delta deliveries south of the Delta to provide benefits to the San Joaquin Valley
2. Advocate for regulatory improvements to the Legislature and state agencies (i.e., DWR, SWRCB) to accelerate groundwater recharge permitting that provides flood control and protects water quality and downstream users.
3. Support actions by DWR and other agencies to implement DWR Watershed studies to advance the CAP outcomes.

Other Six-Month Priorities

1. Prioritization Tool
2. Long-term Habitat Plan
3. Water for Wildlife Refuges
4. San Joaquin River Restoration Program
5. "Cutting Green Tape"



ATTACHMENTS

Restoration Administrator Flow Recommendation

To: Don Portz, Chad Moore, Regina Bricka
CC: Rain Emerson, Rufino Gonzalez, Gary Bobker, Steve Ottemoeller, Ian Buck-Macleod, TAC, FWC
Date: May 4, 2026
From: Tom Johnson, Restoration Administrator
Subject: Revised Flow Recommendation for 2026 Restoration Flows

The following is a revised Restoration Flow Recommendation (Recommendation) by the Restoration Administrator (RA) for the 2026 Restoration Year Flows pursuant to the Restoration Flow Guidelines (RFG) Ver. 2.1, as amended, and Exhibit B of the Settlement. This Recommendation is issued in response to the Allocation dated April 20, 2026.

Background

The SJRRP has issued an Updated 2026 Restoration Allocation (Allocation) dated April 20, 2026, which designates 2026 as a **Normal-Dry** Water Year Type with an Unimpaired Inflow hybrid forecast of 1,444 thousand acre-feet (TAF) and provides an allocation of Restoration Flows of 282.547 TAF as measured at Gravelly Ford (GRF) based on the blended 50% exceedance forecast. The Allocation also specified certain contractual and operational constraints on Restoration Flow releases for 2026.

From October 2025 to present, the Upper San Joaquin watershed has experienced near average precipitation. However, the distribution of the precipitation and runoff (both observed and expected) has been atypical due to two primary factors: 1) most of the precipitation so far this year has fallen during warm storms with high freezing elevations, and 2) March 2026 was among the driest and warmest on record. The result is that while precipitation is near-normal, runoff has been above normal and snowpack has been below normal.

In addition to hydrology, several operational constraints in Reach 3 have required flow adjustments. A heavy concentration of water hyacinth needed to be moved from the lower end of Reach 3 to allow flows to pass Sack Dam at the recommended levels, and additional construction operations will need to be accommodated in mid-May. Finally, in consultation with Implementing Agency biologists, it was determined to hold flows through Reach 4A at specific levels to balance adult spring-run Chinook Salmon attraction flows with the ability to observe and capture returning adults.

I have consulted with the TAC and the FMWG on this Recommendation, and this Recommendation reflects the best use of the Allocation of Restoration Flows for the aquatic resources at this time.

Recommendation for the 2026 Restoration Year

At this time, I am recommending a flow schedule for the 2026 Restoration Year as shown in Table 1, and as follows:

1. Steady flows in early May for adult attraction and capture, then ramp flows down to support construction activities at Sack Dam.
2. Starting in June, maintain flows below Sack Dam.
3. No exchanges or buffer flows are called upon at this time.
4. 11.0314 TAF Gross, 10.479 TAF Net URF's were released on March 19th. **An additional 10,000 AF Net URF's are released with this Recommendation.**
5. No Restoration Flow recapture other than de-minimus amounts are planned in the Restoration Area. All Restoration Flow releases are to flow through the entirety of the Restoration Area.

If there are operational or other constraints that preclude Restoration Flows traveling the entire length of the Restoration Area, the Restoration Recommendation will be adjusted to reduce Restoration Flow releases to the level of the controlling operational constraint.

Table 1. Summary of Restoration Flow Recommendations for May 5, 2026, through February 28, 2027.

<i>Restoration Flow Period</i>	<i>Date Range</i>	<i>Objective</i>	<i>Friant Release (est., varies due to Holding Contracts)</i>	<i>Restoration Flows at Gravelly Ford</i>	<i>Total Flow at Gravelly Ford¹</i>	<i>Target Restoration Flow at Sack Dam (est.)</i>
2026 Spring Flex. Flow Period	May 5 – May 14, 2026	Reduce flow to facilitate adult capture at ESB	Reduce from current as necessary	Approx. 340 cfs	Approx. 345 cfs	250 cfs
	May 15 – May 28, 2026	Ramp Down and hold	Reduce as necessary	As occurs	As occurs	Between 200 and 230 cfs from May 15 th onwards
	<i>Ramping down for improved adult capture efficiency and construction requirements.</i>					
Summer Connectivity	May 29 – June 10, 2026	Summer connectivity	As necessary, est. 465 cfs	250 cfs	255 cfs	145 cfs
	June 11 – September 30, 2026	Summer connectivity	As necessary, est. 375 cfs	160 cfs	165 cfs	70 cfs
	<i>Reduce flows to achieve 250 cfs of Restoration Flows at GRF by May 29. Further reduce flows to achieve 160 cfs of Restoration Flows at GRF by June 11.</i>					
Base Flow	October 1 – October 31, 2026	Reconnect Reach 4 & 5, spring run spawning and egg incubation	As necessary, est. 400 cfs	190 cfs	195 cfs	100 cfs
	November 1 – November 30, 2026	Connected river, spring run egg incubation,	As necessary, est. 420 cfs	230 cfs	235 cfs	135 cfs
Fall Pulse	December 1 – December 31, 2026	Connected river, juvenile rearing	As necessary, est. 440 cfs	320 cfs	325 cfs	220 cfs

<i>Restoration Flow Period</i>	<i>Date Range</i>	<i>Objective</i>	<i>Friant Release (est., varies due to Holding Contracts)</i>	<i>Restoration Flows at Gravelly Ford</i>	<i>Total Flow at Gravelly Ford¹</i>	<i>Target Restoration Flow at Sack Dam (est.)</i>
Base Flows	January 1 – February 28, 2027	Connected river, juvenile rearing	As necessary, est. 400 – 410 cfs	250 cfs	255 cfs	160 cfs

¹Total Flow includes the minimum Holding Contract flows of 5 cfs required at Gravelly Ford

Additional Elements of this Recommendation

This Recommendation anticipates the release of approximately 215 to 220 TAF of Restoration Flows to the river.

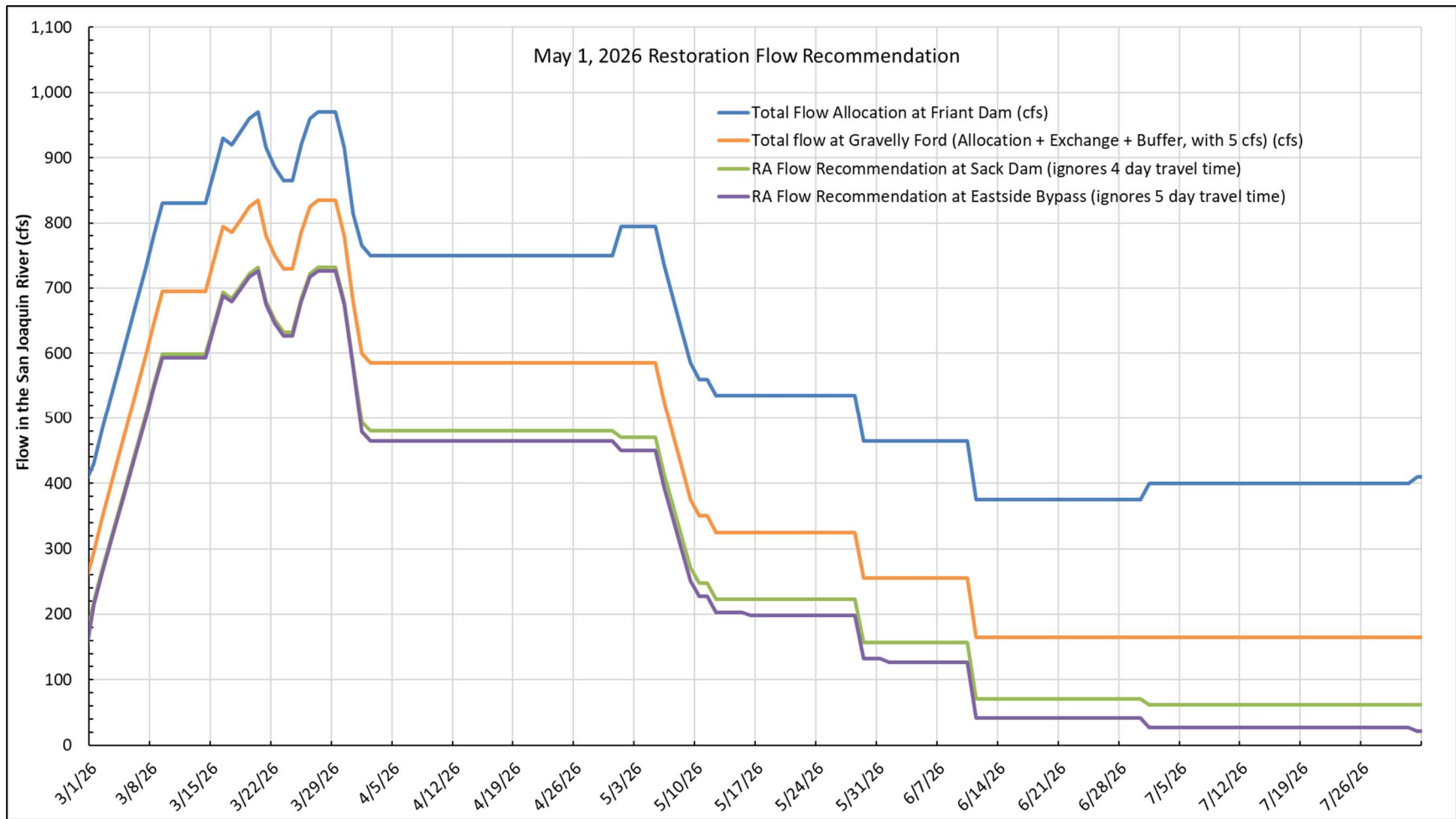
Depending on changing hydrologic conditions, I will adjust or revise this recommendation as necessary.

Additional Consultation

I will continue to coordinate with the TAC, Program Office, and Implementing Agencies to monitor hydrologic conditions, fish population conditions, uncontrolled season releases, operational conditions, and other factors, and will update the Restoration Flow Recommendation as conditions change.

Table 1. Estimate of Released Restoration Flows

Summary Volumes			
GRAVELLY FORD FLOWS AVAILABLE VERSUS RA RECOMMENDATION			
	Available	Used	Balance
Total GRF River Flow Target without 5 cfs (March 1, 2025 - Feb 28, 2026):	282.547 TAF	214.185 TAF	68.362 TAF
Restoration Allocation Flow	282.547 TAF	214.185 TAF	68.362 TAF
Exchange Flow	0.000 TAF	0.000 TAF	0.000 TAF
Buffer Flows	0.000 TAF	0.000 TAF	0.000 TAF
	URF's Disposed of as of 3/25/2026		11.031
Use Buffer Flows? no		Net Alloc Remainder	57.331 TAF



The Mussel Threat Is Already Here – April 2026 Blog Post – Water Blueprint CA

WbpAdmin

You may recall a line of bravado from any number of action movies, “That ain’t a threat, it’s a promise.” Sorry to say this part out loud but, the invasive *Limnoperna fortunei*, also known as the golden mussel, is no longer a hypothetical threat – it’s here in the San Joaquin Valley. More importantly, these mussels can clog pipes, damage pumps, and threaten the reliability of California’s water delivery systems.



Nick Shockey / California Department of Water Resources

First detected in North America in 2024, golden mussels have rapidly spread throughout California’s interconnected water system. Like COVID, the golden mussel comes from a large country in East Asia.

The first new world detection was in South America in the 1990s. They showed up in North America in 2024 and are thought to have been introduced by ship ballast. According to the [California Department of Fish & Wildlife](#) (CDF&W), golden mussels have been found from Martinez in the East Bay to San Diego.

California has faced other invasive mussel species. However, unlike the quagga and zebra mussels (not to be confused with the extinct quagga zebra that roamed the plains of South Africa) the golden mussel can survive in a much broader range of water chemistry. Golden mussels can tolerate far lower levels of calcium and more salinity than the quagga or zebra species. This, plus its prolific breeding, has hastened its spread throughout the Valley.

While fish, birds, mammals and even other invertebrates can function as predators to the golden mussel in its native habitat, such predation isn't happening in California. The golden mussel spawns several times a year producing thousands of plankton-sized veligers, and has migrated from the Delta down the Delta-Mendota Canal and California Aqueduct. They have now spread to the lower reaches of the Friant-Kern Canal through the Cross Valley Canal in Kern County.

The golden mussel has byssal threads that allow them to attach to surfaces and can survive unsubmerged as long as a minimal humidity is present. As a bivalve they filter water altering nutrient content causing harm for other species in their adopted habitat through nutrient reduction and algal blooms. The byssal threads of the golden mussel allow them to attach to both soft surfaces such as silt, even aquatic plants, and hard surfaces such as rocks, and most importantly water conveyance infrastructure.

Although the golden mussels are small (about the size of your fingernail), they can attach to pipes, canal linings, pumps, turnout gates, filter systems etc. in such large numbers as to block the water flow and damage machinery. This creates a direct and growing challenge for maintaining reliable water delivery.





Nick Shockey / California Department of Water Resource

So far the fight against golden mussels has been limited to containment as opposed to eradication. There are not a lot of weapons in the arsenal. Extremely hot water can kill adults and veligers but the scope of the infestation makes this approach limited to smaller, enclosed areas. Dewatering can kill golden mussels, but as stated above even a little water in a pipe can sustain them. There is a copper-based chemical treatment, but its efficacy is limited to certain water temperatures. After the mussels are killed, they leave behind a structure of shells that must be removed. High-pressure spraying, a costly, labor-intensive process, looks to be the best method for clearing the debris and reopening flow paths.

At the present, CDF&W has been working on retooling the quagga and zebra mussel response by focusing on protecting sports fisheries and requiring inspections of watercraft transportation (moving boats from one lake to the other) to deal with the golden mussel. It's true, we don't need to spread golden mussels to recreational spots, but this approach won't do much for protecting and maintaining the main irrigation conveyance systems California agriculture depends on.

One thing we can do to help stem the spread of golden mussels is to report any possible sighting to [CDF&W](#) and your local water and irrigation districts. But reporting alone is not enough, a long-term solution needs to be determined and applied to protect the extensive water infrastructure and more.