

Workshop on Draft Sacramento/Delta Updates to the Bay-Delta Water Quality Control Plan

November 20, 2024



State Water Resources Control Board

Presentation Overview



Workshop overview



Brief background on Bay-Delta Plan*

*Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Watershed



Description of draft regulatory pathway provisions



Next steps and opportunities for public input

Workshop Overview

Purpose

To receive public input on the draft Sacramento/Delta updates to the Bay-Delta Plan released on October 25, 2024

Format

Five workshop days focused on specific topics

Agenda

Staff presentations, topic-specific panel presentations, and topic-specific individual comments

Workshop Topics

November 20	Draft Sacramento/Delta Regulatory Provisions
November 22	Draft Sacramento/Delta Voluntary Agreement (VA)* Provisions <i>*Also referred to as the Healthy Rivers and Landscapes proposal</i>
December 3	VA Habitat Accounting (Half Day) and Tribal Focused Topics (Half Day)
December 12	VA Flow Accounting (Beginning of Day) and General Comments* (End of Day) <i>*Comments not specific to a workshop topic</i>
January 23	Potential Provision to Protect Base Delta Outflows During Drought Periods (Alternative 5a) and Potential Provision to Protect VA Flows and the Base They Are Added to From New Projects (Alternative 6a)

November 20 Agenda

Topic:

Draft

Regulatory
Provisions

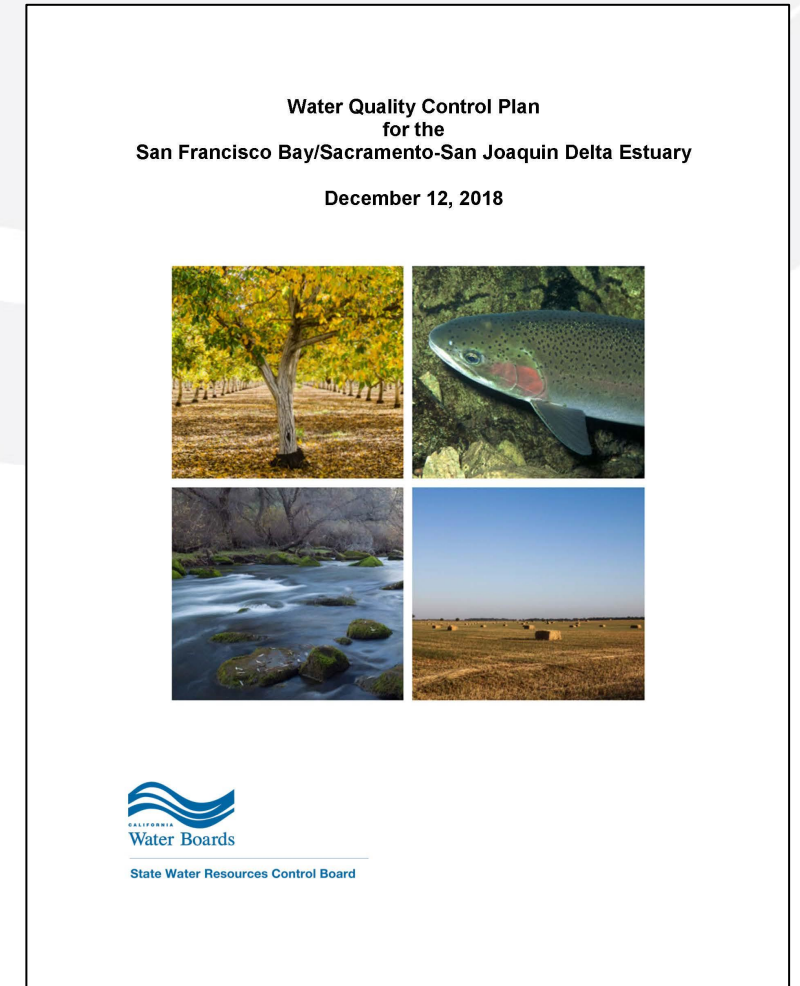
Panel 1: Department of Water Resources, U.S. Bureau of Reclamation, and other VA party representatives

Panel 2: California Sportfishing Protection Alliance, Friends of the River, and San Francisco Baykeeper

Topic-specific individual comments

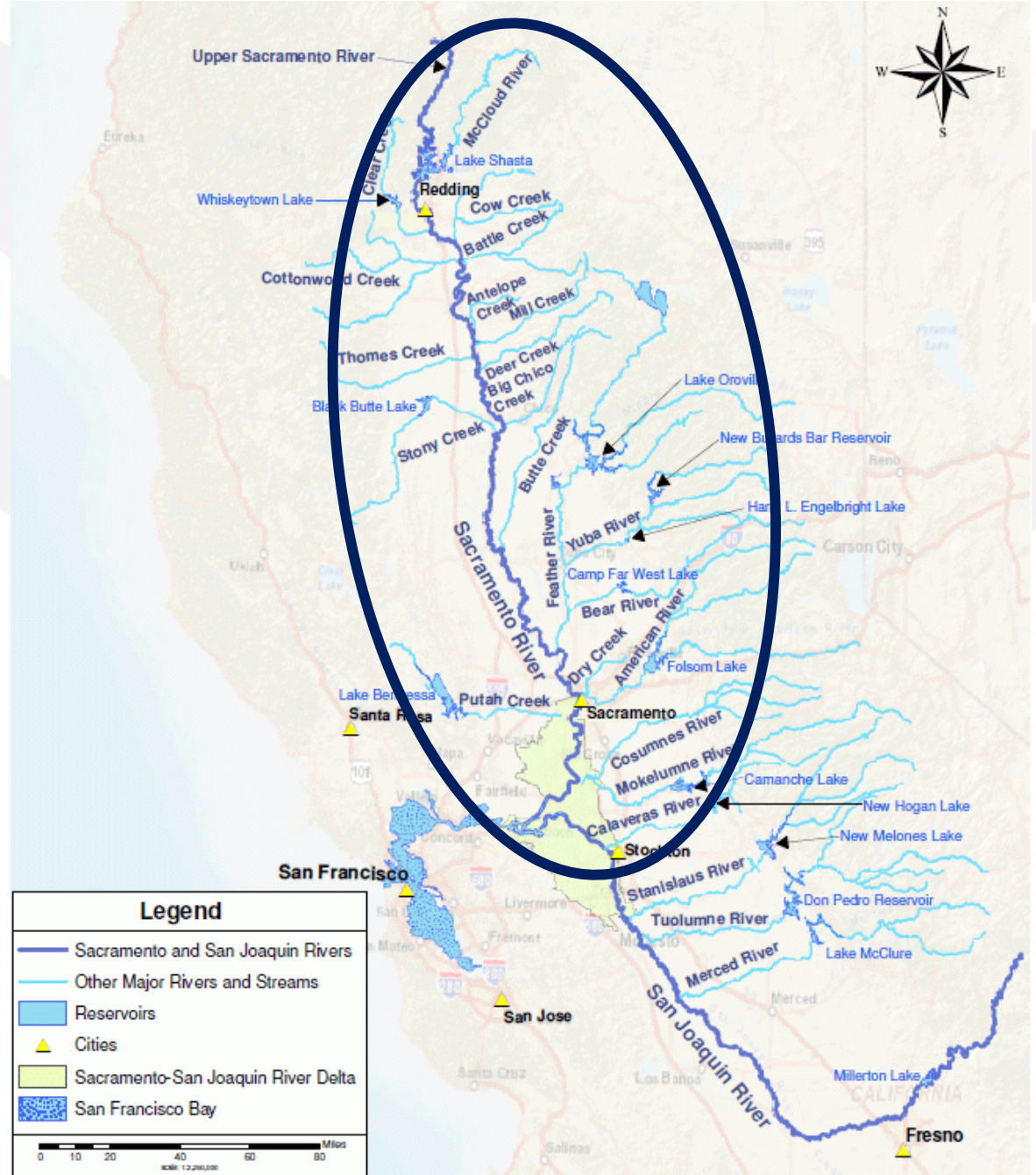
Bay-Delta Plan

- Identifies beneficial uses, water quality objectives to protect uses, program of implementation, and monitoring provisions
 - Current beneficial uses: municipal and industrial, agricultural, fish and wildlife
 - Water quality objectives: narrative and numeric (primarily flow-dependent)
 - Program of implementation: actions by the Board and other entities to protect beneficial uses and implement objectives, including flow and nonflow actions
 - Monitoring and evaluation to assess compliance and effectiveness of implementation actions
- Requires periodic review/triennial review



San Francisco Bay/ Sacramento-San Joaquin Delta (Bay-Delta) Watershed

Sacramento/Delta Update to the Bay-Delta Plan



Bay-Delta Plan Processes

- Update and implementation occurring through separate processes:
 - Sacramento/Delta Update
 - Implementation of 2018 Lower San Joaquin River/Southern Delta Salinity Update
 - Consideration of Tuolumne River Voluntary Agreement



Refer to our FAQs for more information:

waterboards.ca.gov/bay_delta/docs/2024/faq-bdplan.pdf

Sacramento/Delta Update Process to Date

- 2017 – Completion of Scientific Basis Report supporting the draft Sacramento/Delta regulatory provisions of the Bay-Delta Plan
- 2018 – Framework for possible regulatory provisions
- 2022 – Voluntary Agreements (VA) Memorandum of Understanding
- 2023 – Draft VA Scientific Basis Report Supplement
- 2023 – Draft Staff Report/Substitute Environmental Document

Draft Sacramento/Delta Updates

- On October 25, 2024, staff released for public comment draft Sacramento/Delta updates to the Bay-Delta Plan including options for:
 - VAs proposed by water users and state and federal agencies (Healthy Rivers and Landscapes proposal)
 - Regulatory provisions that could apply 1) if VAs are not approved; or 2a) if VAs are approved would apply to non-VA parties; and 2b) if VAs are approved could apply to VA parties if VAs are discontinued
 - General provisions that would apply to all water users regardless of whether VAs are approved
- Board has not yet made any decisions on these options and is seeking public input to inform its decisions

Format of Draft Updates to Bay- Delta Plan



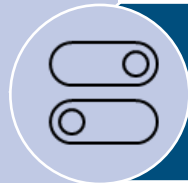
A complete draft that presents draft regulatory pathway and VA pathway provisions in a single document



Includes "notes to reader" that explain options that are under consideration or provide context



Text in boxes indicate options for specific program of implementation language



Options include text developed by staff and text developed by VA parties



Minor edits to update outdated provisions and improve clarity and readability

Summary of Draft Updates

- Intended to address aquatic ecosystem stressors within the Board's responsibilities to provide for the reasonable protection of fish and wildlife in the Sacramento/Delta
- Includes options based on alternatives described in September 2023 draft Staff Report for Sacramento/Delta updates to the Bay-Delta Plan, which analyzes potential benefits and impacts of possible updates
- Includes specificity and refinements from the options described in draft Staff Report, informed by public comments
- No substantive changes associated with measures to protect municipal, industrial, or agricultural uses, or Lower San Joaquin River fish and wildlife flows (updated in 2018)



Major Regulatory Provisions

- Referred to as “proposed Plan amendments” in draft Staff Report
- Narrative and numeric objectives and implementation provisions requiring inflows from the Sacramento River, its tributaries, and Delta eastside tributaries*
- Narrative cold water habitat objective and implementation provisions to protect cold water habitat for salmonids*
- Inflow-based Delta outflow objective and implementation provisions that would require required inflows to be provided as outflows*
- Narrative interior Delta flow objective and implementation provisions
- Changes to the existing Delta Cross Channel Gate closure objective and implementation provisions

*If VAs are adopted, these objectives may either remain as objectives or move to program of implementation

Sacramento/Delta Tributary Inflow

- Inflows from the Sacramento River, its tributaries, and Delta eastside tributaries
 - Narrative and numeric year-round inflows of 55% of unimpaired inflows with adaptive range of 45-65%
 - Board seeking public input to determine if inflow levels and range should be modified between 35-75%
- Apply throughout the watershed on all Sacramento/Delta tributaries that support or contribute to the protection of anadromous fishes



Photo provided by CA Dept. of Fish and Wildlife

Initial Compliance Locations for Inflow Objective

Tributary	Tributary Forks or Branches (Where Applicable)	Tributary	Tributary Forks or Branches (Where Applicable)
Cow Creek	-	Bear River	-
Battle Creek	-	American River	North Fork American River, Middle Fork American River, South Fork American River
Bear Creek	-	Sacramento River	-
Butte Creek	-	Cosumnes River	-
Antelope Creek	-	Mokelumne River	North Fork Mokelumne River
Deer Creek	-	Calaveras River	-
Mill Creek	-	Stony Creek	-
Paynes Creek	-	Cottonwood Creek	-
Clear Creek	-	Thomes Creek	-
Big Chico Creek	-	Elder Creek	-
Feather River	North Fork Feather River, Middle Fork Feather River, South Fork Feather River, West Branch Feather River	Cache Creek	-
Yuba River	North Yuba River, Middle Yuba River, South Yuba River	Putah Creek	-

Inflow Adaptive Implementation

- Optimize flows to benefit fish and wildlife while considering other beneficial uses, and allow inflows to be implemented in conjunction with cold water habitat provisions
- Where best available science supports a different flow pattern or a combination of flow and non-flow actions, could:
 - Shape flows
 - Move in the range of unimpaired flow (currently 45-65%)
- Short-term or long-term basis, including as part of local cooperative solutions



Photo provided by CA Dept. of Fish and Wildlife

Inflow Relaxations During Dry Conditions

- To protect cold water habitat and minimize water supply impacts during very dry conditions, inflow requirements would be reduced at times during the October 1 through March 31 period as follows:
 - When reservoir storage in the tributary is less than 75% of the allowable level for flood control, flow requirements would be reduced to 45% of unimpaired flow
 - When reservoir storage in the tributary is less than 50% of the allowable level for flood control, flow requirements would be reduced to 35% of unimpaired flow

Cold Water Habitat

- Narrative objective requiring that cold water flows are maintained and timed to provide for downstream temperatures to protect salmon
- Requirements to either maintain minimum carryover storage levels or take other actions to provide cold water habitat
- Requirement to develop long-term temperature management strategies and annual operations plans for Executive Director approval



Photo provided by Dale Kolke
CA Department of Water Resources

Initial End of September Carryover Storage Requirements

Reservoir	Carryover Storage Requirement (TAF): D and C ¹ Water Year Types	Carryover Storage Requirement (TAF): W, AN, and BN Water Year Types
Shasta Reservoir	2,000	2,400
Whiskeytown Reservoir	210	210
Oroville Reservoir	1,200 ²	1,600
New Bullards Bar Reservoir	400	600
Camp Far West Reservoir	20	20
Folsom Reservoir	400	500
Camanche Reservoir ³	150	200
Pardee Reservoir	160	160
New Hogan Reservoir	50	100
Lake Berryessa	700	1,200

¹ Exceptions may be granted by the Executive Director during droughts of two or more years duration.

² Power bypass must be used as necessary to meet existing California Department of Fish and Wildlife temperature requirements on the low flow channel.

³ Requirements based on Mokelumne River Joint Settlement Agreement April through September year type.

Basis for Initial Carryover Storage Requirements

- Historical relationships between fall reservoir storage and release temperature
- Temperature modeling where available (Shasta, Oroville, Folsom)
- Intermittent or opportunistic use by cold water fish (Camp Far West, Berryessa, New Hogan)
- Historical storage conditions (Whiskeytown, Pardee)

Local Cooperative Solutions

- Water right holders may propose local cooperative solutions to comply with inflow and cold water habitat objectives
- May use adaptive implementation provisions
- May propose complementary ecosystem protection measures such as habitat restoration, passage, improvements in cold water management structures, or other measures to provide equivalent protections for fish and wildlife at lower water supply costs
- Require public review and Executive Director or State Water Board approval

Inflow-Based Delta Outflow

- Requirement that required inflows be provided as outflows
- Required inflows include those from Sacramento/Delta and Lower San Joaquin River tributaries
- Includes accretions and adjustments for downstream natural depletions
- If VAs are adopted, the required outflow would be sum of VA outflows and the additive flows provided from other water rights subject to the regulatory pathway



Photo provided by Kelly M. Grow, CA Dept. of Water Resources

Possible Exception for Delta Lowlands

- Recent information indicates that the net consumptive use of irrigated agriculture on subsided islands below sea level in the Delta may be equivalent to the amount of water used by vegetation absent irrigation and land management
- Considering initial exemptions to the inflow-based Delta outflow requirement for diversion and use of water to irrigate lands below sea level in the Legal Delta
- Board would conduct analyses regarding water use on irrigated lands below sea level in the Delta and could refine the exception

Interior Delta Flows

- Narrative objective to protect native species residing in or migrating past the interior Delta
- Changes to Delta Cross Channel Gate objective for consistency with Biological Opinions
- New objectives for Old and Middle River flow, San Joaquin River Inflow to Export ratio, and fall Delta outflow were not included consistent with Alternative 4a from draft Staff Report



Photo provided by CA Dept. of Water Resources

General Provisions

- Incorporation of tribal beneficial uses (December 3 workshop)
- Drought provision (January 23 workshop)
- Implementation methodology
- Annual and periodic review
- Biological goals
- Monitoring, special study, evaluation, and reporting
- Trinity River



Photo provided by CA Dept. of Fish and Wildlife

Implementation Methodology

- Methodology to be developed to determine when water is not available in order of water right priority to inform curtailments to protect flows needed to meet senior demands/protect previously stored water and instream flows (regulatory and VAs)
 - Determinations of unavailability due to limited supplies and senior demands (without consideration for instream flows) – would apply to all water right holders regardless of VAs and would provide system for ensuring water provided under VAs is available for instream dedication and protected from diversion by others
 - Determinations of unavailability to meet regulatory inflow and inflow-based Delta outflow requirements – would apply to water rights that are not covered by approved VAs

Curtailment Exceptions

- VA water rights would only be excepted from curtailments to meet inflow and inflow-based Delta outflow requirements
- Possible exceptions to all curtailments for:
 - Non-consumptive uses
 - Human health and safety
 - Wildlife refuges
- Exceptions would not change curtailments for non-excepted parties



Photo provided by Florence Low, CA Dept. of Water Resources

Implementation Methodology to Protect Instream Flows

- When used to protect inflows and outflows, the implementation methodology will deduct required flows (e.g., 55% unimpaired flow) from available supply
- Remaining supply will be available in order of water right priority
- When no supply remains, remaining water rights will be curtailed unless an exception applies
- Compliance with curtailments will represent compliance with inflow and outflow requirements
- Methodology will be developed through a public process and subject to refinement over time as improved information is available

Review and Assessment

- Annual and periodic review
 - Public meetings to be held annually to discuss progress on implementation of the Bay-Delta Plan and adaptive management
 - Periodic reviews held every three years to discuss possible needed changes to the Bay-Delta Plan or its implementation to protect beneficial uses
- Biological goals
 - Numeric biological goals would be developed for Sacramento/Delta tributaries and the Delta that would inform continued update and adaptive implementation of the plan

Monitoring

- Monitoring updates recommended in 2009 periodic review and identified in 2012 Notice of Preparation
- Most existing monitoring requirements found in Decisions 1641 and 1485 are broad and general creating ambiguity
- Proposed updates clarify specific requirements and provide process for updating those requirements
- Existing requirements only cover the Delta and apply to Department of Water Resources and Reclamation – updates to broaden scope and responsibility



Photo provided by Zack Cunningham, CA Dept. of Water Resources

Bay-Delta Monitoring and Evaluation Program (BDMEP)

- BDMEP comprises the monitoring activities needed to implement the Bay-Delta Plan, including to assess compliance, evaluate effectiveness, and inform potential future updates
- Initial BDMEP adds specificity to existing monitoring requirements in Decision 1641, Decision 1485, and other water right conditions
 - Data quality standards
 - Processes for review and approval of changes to monitoring surveys
 - Reporting requirements
 - Specific required monitoring activities in Appendix A
- Commit to developing a comprehensive BDMEP that covers the entire watershed and is the responsibility of all water users

BDMEP Reviews and Updates

- Possible changes to monitoring requirements and designs will be evaluated during annual and periodic review processes
- Reviews will focus on ensuring that monitoring is providing necessary information to support Bay-Delta Plan implementation and to consider updates to the plan
- Proposed changes must be supported by best available scientific evidence, including consideration of the need to preserve the integrity of the long-term data record
- Subject to public review and input and requires approval by Executive Director

Harmful Algal Blooms (HABs)

- Board to continue to implement the Freshwater Harmful Algal Bloom Monitoring Strategy
- Board to coordinate with the Central Valley and San Francisco Bay Regional Boards, other agencies, Tribes, and other parties to implement the Delta Cyanobacteria Harmful Algal Blooms Monitoring Strategy
- Board to support efforts to improve HAB science, research, and monitoring; develop HAB models; and identify possible management and mitigation measures to control HABs in the Delta
- Requirements for HAB monitoring in the Delta, including phytoplankton measurements and cyanobacterial toxin testing
- Requirements for VA parties to contribute to HAB monitoring in the VA tributaries and in the Delta, if VAs are implemented

Trinity River

- Reclamation required to ensure implementation of updates to the Bay-Delta Plan do not result in redirected impacts to native fish and wildlife in Trinity River watershed
- At least annual reporting
- Applies to regulatory pathway and VA pathway



Photo provided by Vince Arrant, CA Dept. of Water Resources

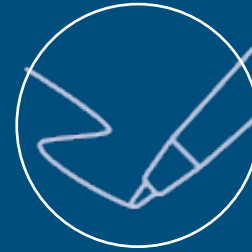
Major Next Steps



Receive public comments in writing and orally at multiday workshop



Develop a revised draft of proposed updates to Bay-Delta Plan based on public comments



Continue to review comments on draft Staff Report and develop final Staff Report



Board meeting to consider adoption of Sacramento/Delta updates to Bay-Delta Plan and final Staff Report

Resources and Contact Information

- Sacramento/Delta Update to Bay-Delta Plan: waterboards.ca.gov/bay_delta/comp_review.html
- Proposed VAs: waterboards.ca.gov/bay_delta/proposed_voluntary_agreements.html
- Bay-Delta Watershed: waterboards.ca.gov/bay_delta/
- Email: SacDeltaComments@waterboards.ca.gov



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