

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

December 12, 2024



State Water Resources Control Board

Presentation Overview



Workshop overview



Overview of draft flow accounting provisions

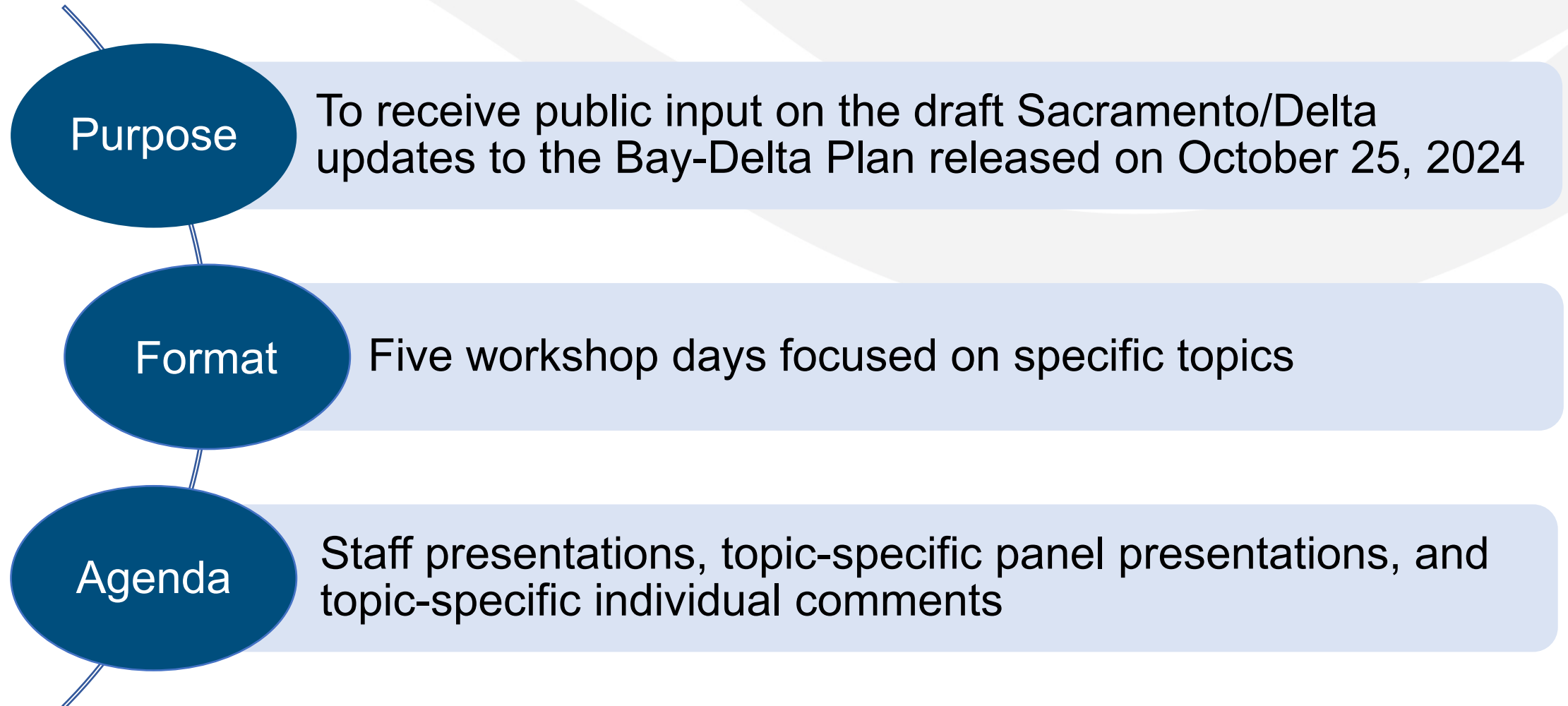


Description of outstanding flow accounting questions



Next steps and opportunities for public input

Workshop Overview



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)

December 12 Agenda

Topic: VA Flow Accounting

Solano County elected officials and any other elected officials and tribal members

Panels 1-3: Department of Water Resources, Bureau of Reclamation, and other VA party representatives

Panel 4: Nevada Irrigation District, South Sutter Water District, Yolo County Flood Control and Water Conservation District, and Sutter Bypass Butte Slough Water Users Association

Panel 5: South Yuba River Citizens League/Yuba River Waterkeeper, Golden Gate Salmon Association, California Sportfishing Protection Alliance, and Friends of the River

Individual comments (topic-specific and general)

Purpose of Workshop

- Flow accounting overview
- Receive public input
 - *Are the draft conditions VA flow accounting must meet that are included in the program of implementation appropriate or should changes be made?*
 - *What changes, if any, should be made to the specific VA flow accounting protocols developed by VA parties in order to meet the above conditions for incorporation in Appendix B (Voluntary Agreements Accounting Protocols)?*

A Note on Terminology

- VA Flow Base, Baseline Conditions, Reference Flow, Reference Operation
 - *These terms are taken to be equivalent for the purposes of flow accounting, but should not be confused with the CEQA baseline that serves as a basis for evaluating environmental impacts in the Draft Staff Report released in September 2023*
 - *The VA base for accounting purposes is different than the Staff Report Baseline, with the biggest difference in export restrictions*
- “Project” or “Projects” refer to State Water Project and Central Valley Project collectively
- “Non-Project” refers to water users, tributaries, or infrastructure not associated with the Projects

Purpose of Flow Accounting

- To ensure that flows are provided consistent with the Voluntary Agreements (VA) Memorandum of Understanding (MOU) and consistent with analyses in the supporting Staff Report and Scientific Basis Report
 - Define base flow conditions at tributary and watershed-wide scales
 - Ensure that VA flows are additive to Delta outflow
- To ensure that VA flows are available to be provided instream and can be protected from other diverters consistent with water right priorities
- To provide transparent documentation to the public, including other water right holders, and decision makers of the above

VA Flow Commitments

Location or Source	Additive Delta Outflow (thousand acre-feet) by Water Year Type				
	C	D	BN	AN	W
Sacramento		100	100	100	
American	30	40	10	10	
Yuba*		60	60	60	
Feather		60	60	60	
Putah	7	6	6	6	
Mokelumne		5	5	7	
Delta Forgone Exports		125	125	175	
Friant		50	50	50	
PWA Water Purchases	3	113.5	144.5	182.5	27
Permanent State Water Purchases	65	108	9	52	123

* Modified to 50 TAF D/BN/AN in October 2024 Draft Strategic Plan

Flow Accounting in VA MOU

- Excerpts from VA Memorandum of Understanding (MOU) Appendix 4:
 - **“Implementation criteria: Quantitative metrics will be developed to ascertain whether VA commitments are met. Implementation criteria will be established to ensure actions are taken to provide (1) flow volumes by water year type above baseline as specified in Appendix 1, and (2) non-flow assets, including instream and floodplain habitat projects, that meet design criteria, acreage, and other targets.”**
 - **“In coordination with the SWB and other VA Parties, CDWR and the U.S. Bureau of Reclamation will develop accounting procedures to assure that flows and habitat restoration provided under the VAs are additional contributions above baseline conditions as defined in Section 4 of this Term Sheet. These procedures will be incorporated into the Implementation Agreements and subject to approval by the State Water Board.”**

Flow Accounting in VA MOU

- VA MOU Section 4

- 4. **Additional Delta Outflows, Tributary Flows, and Habitat.**

- “4.1. The VA flows described in Appendix 1 will be additive to the Delta outflows required by Revised Water Rights Decision 1641 (Revised D1641) and resulting from the 2019 Biological Opinions, although the 2019 Biological Opinions may be modified, including to resolve litigation concerning those opinions.”**

Flow Accounting in VA Strategic Plan

- Section 2.1.4 and Table 7
 - Narrative description of flow accounting by tributary or water source
- Appendix E
 - Specific accounting procedures by tributary or water source

Flow Accounting Criteria in Draft Plan Updates

- Identification of Water Rights Covered by VAs in Advance of Adoption
 - Needed to establish which rights are not subject to regulatory pathway requirements
 - VA water rights subject to curtailment when water is not available at priority of right
- Identification of Water Rights VA Flows are Provided Under
 - Must be identified at least 90 days in advance of flow action to confirm that water is available without impacting other legal users of water
 - Must not be duplicative of another right still used for consumptive uses
 - Instream flow dedication must not injure other legal users of water or unreasonably impact fish and wildlife
 - Water Code section 1707 petitions not required
 - Same criteria apply to purchases
- Protection of VA Flows Base Applicable to New Water Supply Projects
 - Alternative 6a in draft Staff Report
 - To be discussed further at January 23, 2025 Workshop

Flow Accounting Criteria in Draft Plan Updates

General Requirements (Section 4.4.10.3)

- i. Transparent reporting of base conditions and additive VA flows on at least a weekly basis with monthly running summaries and annual reports
- ii. Documentation of assumptions used to define base operations
- iii. Documentation that VAs do not and have not affected base operations on a seasonal basis and year to year
- iv. Demonstration that water use has not expanded to reduce base flows in a manner inconsistent with the provision to protect the VA base flow described in section 4.4.10.1

Flow Accounting Criteria in Draft Plan Updates

General Requirements (Section 4.4.10.3)

- v. Verification that implementation of VAs has not resulted in another VA party or water user reducing flow bypass or release due to provision of VA flow commitments
- vi. Demonstration that flows provided by non-VA parties subject to regulatory provisions of the Bay-Delta Plan are additive to VA flows
- vii. Documentation of specific methods used to determine export limits to bypass other VA flows, VA flows provided by export reductions, other regulatory flows to meet Bay-Delta Plan requirements and other instream flow dedications
- viii. Documentation of all other methods needed to account for the addition of VA flows to approved base conditions on a near real-time basis and annually

Flow Accounting Criteria in Draft Plan Updates

Flows made available through groundwater substitution (Section 4.4.10.3)

- i. Measurement and reporting of the amount of increased groundwater pumping conducted to provide VA flows
- ii. Identification of the location and characteristics of the groundwater wells used
- iii. Historical groundwater pumping records for identified wells used for that pumping
- iv. Development of a monitoring plan to assess the effects of groundwater pumping
- v. Verification methods to ensure that any water made available through groundwater substitution is producing additive flows without redirected impacts to stream flows and consistent with SGMA

Flow Accounting Criteria in Draft Plan Updates

Flows made available through land fallowing (Section 4.4.10.3)

- i. Identification of the specific fallowed parcels by March 1 of each year
- ii. Verification of the baseline cropland planting conditions absent VA actions
- iii. Documented calculations of the volume of water provided by fallowing over approved base conditions using assumptions approved by the Executive Director
- iv. Crop maps and monitoring methods used to conduct field monitoring activities to confirm fallowing

Flow Accounting Criteria in Draft Plan Updates

Flows made available through reservoir reoperations (Section 4.4.10.3)

- i. Verification that net additive flows are provided during January through June above approved base conditions
- ii. Reservoir refill provisions that avoid reductions in flows during the January through June time period in all years except wet water year types

Staff Summary of Outstanding Issues

- Following summary reflects status of documents available at time of release of draft Plan updates and new VA documents received at that time
- Subsequent meetings with DWR and Reclamation have resulted in some progress that will be described in VA panel presentations

Staff Summary of Outstanding Issues

- VA Flow Accounting Base
 - Project Operations and Biological Opinions
 - Non-Project Base Conditions
 - Transparency and Reproducibility
- Groundwater Substitution
- Land Fallowing
- Reservoir Reoperation and Refill Provisions
- Water Purchases
- Delta Regulatory Offsets
- Provisions for Updating Assumptions or Methods

VA Flow Accounting Base – Project Operations

- Decision 1641, Biological Opinions, and Incidental Take Permit
 - Variable descriptions of the base: 2019 BiOps vs. 2024 BiOps vs. Biological Opinions and Incidental Take Permits in place at the time
 - Need to describe consistently among Project tributaries and Delta facilities
 - Need to determine and provide process if accounting base is subject to change during VA term
 - Provide analysis of changes to tributary inflow, Delta outflow, and Delta exports associated with change from 2019 BiOps to identified VA flow accounting base for Projects

VA Flow Accounting Base – Non-Project Base Conditions

- Decision 1641, Biological Opinions, and Incidental Take Permit generally not relevant to non-Project tributaries
- Narratively described in Strategic Plan Table 7, more specifics in VA Strategic Plan Appendix E
- Should identify whether or how VA flow base may change through any ongoing or near-term actions in other venues (e.g., FERC relicensing, San Joaquin River Restoration Program channel capacity improvements, changes to flood control curves, etc.)

VA Flow Accounting Base – Transparency and Reproducibility

- Transparent documentation of real-time assumptions and data used to define VA base flows
 - Tools (e.g., spreadsheet or other models) used to support these determinations should be documented and shared
- Consistent methods for determining base conditions
 - SWP and CVP methods should be consistent
 - Non-Project components should be as consistent as feasible
 - Clear communication of controlling factor
- Provisions to prevent redirected effects to other tributaries (e.g., Trinity and Stanislaus Rivers)

Groundwater Substitution

- Identification of methods to define baseline groundwater pumping conditions
- Identification of specific streamflow depletion factors
- Coordination provisions with reservoir operators providing surface water flows

Land Fallowing

- Identification of specific crop acreages that will be fallowed and associated crop duties
 - Verification that crop fallowing is net additive and not only the result of regular crop rotation
 - Loss assumptions that will be applied, and any other specific assumptions that will be used from the transfer white paper or other sources
- Provisions for shifting the timing of flows generated by fallowing to January through June time period instead of providing on the irrigation pattern, including associated upstream reservoir operation commitments

Reservoir Reoperation and Refill Provisions

- Reservoir reoperation to provide increased flow results in later refill of evacuated or bypassed storage
- For transfers facilitated by the Projects, refill conditions are generally imposed that confine refill to Delta excess conditions and flood control conditions at Project reservoirs (e.g., Appendix E at p. 19)
 - Designed to prevent redirected impacts to Project supplies and operations by allowing refill during excess conditions
 - Not necessarily sufficient to prevent reduction of Delta inflow and outflow during excess conditions in target period of January through June

Water Purchases

- Robust accounting methods should be developed for all potential water purchases
 - Fixed price and permanent purchases should have accounting methods defined in advance before adoption of the plan and execution of the purchase agreement
 - Market price purchase methods should be defined in advance to minimize delay or negotiation related to accounting terms and terms should be consistent with other VA flow accounting provisions, including water right criteria identified earlier

Delta Regulatory Offsets

- Intended to ensure that VA inflows from Project and non-Project sources are protected through the Delta and not exported or otherwise diverted
 - Specific methods to quantify regulatory offsets for any water quality objective or other constraint that may control operations
 - Clear procedures for excess and balanced conditions
 - Specific methods for determining whether “excess” X2 days or Roe Island trigger were caused by VA flows

Provisions for Updating Assumptions or Methods

- Need for specific, well-defined assumptions with allowances for adaptation in light of improved information
- Procedures should be included for assessing the performance of flow accounting methods and assumptions and updating them as necessary and appropriate
- State Water Board retains authority to approve updates to methods and assumptions through a public process to ensure that new assumptions are based on appropriate technical information and are consistent with the intent of adopted accounting procedures

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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