

Working Meetings on Draft Sacramento/Delta Updates to Bay-Delta Plan

Working Meeting #6: Monitoring and
Evaluation for Regulatory Provisions



February 5, 2025

Attendees

Welcome to Today's Meeting

- Facilitator
 - Meagan Wylie, Zephyr Collaboration
- Presenter
 - Dr. Sam Bashevkin, Division of Water Rights
- Additional Board staff from the Division of Water Rights and Office of Chief Counsel providing support
- One or two Board members may attend this and other meetings to observe but are not otherwise planning to participate or provide input

Reminders

Format

- 2-hour staff-led virtual meeting
- Staff will present key questions (provided in advance) and slides relevant to today's topic to guide discussion
- Focus only on the major provisions relevant to today's topic
- Participants must raise hand by using hand icon in Zoom or dialing *6 on phone if calling in and wait to speak until you are called upon

Participation Guidelines

- Use appropriate and respectful dialogue
- Stay on topic
- Share speaking time considerately
- Be as concise and specific as possible
- Be open to listening to and understanding different perspectives
- Review relevant sections of draft plan in advance
- Designate point person to speak on group's behalf, if possible
- Provide constructive input
- Avoid general comments

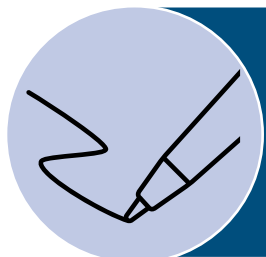
Purpose of Today's Meeting



Discuss monitoring and evaluation for regulatory provisions in the October 2024 draft Bay-Delta Plan* updates



Hear constructive input on whether and what changes should be made to specific provisions and concepts, if any



Share input with Board to inform development of revised draft Bay-Delta Plan for additional public review and comment

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

Provisions to be Discussed Today

- Initial Bay-Delta Monitoring and Evaluation Program (BDMEP)
 - Review and revision of monitoring and special studies
 - Data management and quality
 - Reporting
 - Required monitoring activities
- Comprehensive BDMEP
 - Estuary monitoring
 - Tributary monitoring
 - Harmful algal blooms (HABs)
 - Special studies

Guiding Questions

- 1) What, if any, modifications should the Board consider to the processes for establishing, reviewing, and revising the Bay-Delta Monitoring and Evaluation Program (BDMEP) (pp. 116-121)?
- 2) What, if any, modifications should the Board consider to the review and revision, data management and quality, reporting, and special study provisions of the BDMEP (pp. 118-121, A-12–A-13)?
- 3) What, if any, modifications should the Board consider to the required monitoring activities in the initial BDMEP (pp. A-1–A-11)?
- 4) What, if any, modifications should the Board consider to the types of monitoring activities required under the comprehensive BDMEP (pp. 120-121)?

Bay-Delta Monitoring and Evaluation Program (BDMEP)

- Board to require monitoring, evaluation, reporting, and special studies through water right and water quality actions to assess compliance with water quality objectives, investigate the technical factors involved in water quality control, inform implementation of the Bay-Delta Plan (including adaptive management), and inform possible future changes to the plan
 - BDMEP is established to comprise these monitoring activities
- BDMEP to address both the individual and cumulative impacts of diversions and discharges on beneficial uses of water including fish and wildlife, recreation, tribal, municipal, industrial, and agricultural uses
- Some BDMEP requirements could be fulfilled through VA monitoring actions

Bay-Delta Monitoring and Evaluation Program cont.

- BDMEP is an appendix (currently Appendix A) to the Bay-Delta Plan that may be regularly updated without plan amendments, as appropriate, including through the annual and periodic review processes
- As a starting point, the BDMEP includes:
 - Monitoring and reporting requirements pursuant to conditions in the water rights for the operations of the State Water Project and Central Valley Project (Projects), including the addition of specific requirements for monitoring pursuant to general water right conditions
 - Monitoring and reporting identified in the 2018 Bay-Delta Plan (with the exception of the SJRMEP)
 - Additional monitoring needed to address HABs

Initial BDMEP

- The initial BDMEP incorporates:
 - Specific requirements from Table 5 “Water Quality Compliance and Baseline Monitoring”, a table contained in both D-1641 and the 2018 Bay-Delta Plan, and the associated map of monitoring locations
 - Other specific monitoring requirements applicable to Project water rights included in other water right decisions
 - Requirements for water quality, hydrologic, and biological monitoring and special studies pursuant to general requirements of D-1641 and D-1485 applicable to the Projects, including monitoring to fill current information gaps and clarification of other monitoring requirements pursuant to D-1641 and D-1485
 - Hydrology and water quality monitoring needed to assess compliance with flow and water quality objectives that are the responsibility of the Projects pursuant to D-1641 and D-1422

New Monitoring Requirements in Initial BDMEP

- New monitoring and measurement requirements applicable to the Projects are added for phytoplankton measurements, including HAB visual indices and cyanobacterial toxins
 - Added pursuant to the requirements of condition 10 of D-1485; and also contribute to fulfilling condition 11 of D-1641
- Two additional special studies
 - HABs: special studies to inform the development of HABs modeling and to test the efficacy of management and mitigation measures
 - LSJR Barriers, Salmonid Survival, and Life History Diversity: special study to assess the possible use of barriers at the Head of Old River to protect outmigrating LSJR salmonids from impacts of Project export operations

Table A-1. Specific Water Quality and Food Web Monitoring Requirements

- Modified version of Table 5 in the current (2018) Bay-Delta Plan titled “Water Quality Compliance and Baseline Monitoring”
- New monitoring activities:
 - HAB visual indices and cyanobacterial toxins added to discrete physical/chemical monitoring sites
 - Phytoplankton enumeration **and** algal pigment analysis sampled at phytoplankton sites
- New monitoring locations:
 - Frank's Tract eastern/southern side
 - McLeod Lake at Stockton Waterfront
 - Victoria Canal near Byron
 - Big Break Regional Shoreline at San Joaquin River
 - Middle River at Ski Beach
 - Mildred Island
- Discrete physical/chemical and/or phytoplankton sampling added to:
 - Mokelumne River at Terminous
 - San Joaquin River at Antioch Ship Canal
 - San Joaquin River at Jersey Point
 - Sacramento River below Rio Vista Bridge
 - San Joaquin River (Turner Cut to Stockton)

Table A-2 Required Monitoring Activities

- Listed monitoring surveys to be conducted pursuant to water right requirements of the Projects listed in column 2 of Table A-2
- Each listed monitoring survey is to be conducted consistent with monitoring designs as of the date the Bay-Delta Plan amendments are adopted, unless revisions are approved
- Projects to resume three discontinued surveys or submit a plan for an appropriate substitute to the Executive Director for consideration of approval, including any appropriate conditions, within six months of approval of the plan amendments by the Office of Administrative Law
 - Adult Sturgeon Study
 - Adult Striped Bass Study
 - Spring Kodiak Trawl

Initial BDMEP Processes

- Review and revision of monitoring and special studies
 - Changes to BDMEP, including monitoring designs, to be evaluated during annual and periodic review processes and subject to public review and comment and approval by the Executive Director
 - Monitoring design changes to consider need to preserve the integrity of the long-term data record
- Data management and quality
 - Quality assurance and instrument maintenance protocols to conform to established standards for each field of study and be submitted to the Executive Director
 - Executive Director may require changes to address any needed data quality issues
- Annual reports summarizing prior water year to be submitted to the Executive Director by January 15 of each year, including:
 - Data quality review
 - URLs to the public locations of data
 - Assessments of trends
 - Assessment of compliance with flow and water quality objectives
 - Any other relevant information as requested by the Executive Director

Comprehensive BDMEP

- Initial BDMEP to be further developed to include monitoring activities by other water right holders in addition to Projects
 - Additional monitoring for the tributary watersheds and the Bay-Delta estuary
- Development and structure
 - Developed by staff in coordination with partner agencies, Tribes, and others
 - Will identify management and monitoring questions to guide monitoring, assessment, and reporting activities and to ensure the purposes of the BDMEP are achieved
 - Will incorporate existing monitoring activities, to the extent possible
 - Executive Director will consider approval of the comprehensive BDMEP within two years of approval of the plan amendments by OAL
 - BDMEP will be regularly reviewed and may be further revised in the future subject to Executive Director approval

Comprehensive BDMEP

- Estuary monitoring
 - Hydrology: continuous flow monitoring at locations associated with compliance or implementation of the objectives.
 - Water quality: year-round monitoring of key environmental variables including salinity, temperature, turbidity, nutrients, organic matter, chlorophyll, HABs.
 - Lower food webs: year-round monitoring of the abundance, biomass, and distribution of phytoplankton, zooplankton, other plankton, and benthic invertebrate communities, including differentiation of life stages where appropriate.
 - Fishes: year-round monitoring of the abundance, distribution, diets, migration routes, salvage of fish communities, including larval, juvenile, and adult life stages of fishes, and any other elements required to assess Biological Goals.
 - Aquatic weeds: at least annual surveys of species-specific aquatic weed coverage in the Bay-Delta using consistent methods. This could include a combination of remote sensing and field-based surveys.

Comprehensive BDMEP

- Tributary monitoring
 - Hydrology: continuous flow monitoring at locations associated with compliance or implementation of the objectives.
 - Water quality: year-round monitoring of key environmental variables including temperature, turbidity, HABs, contaminants, nutrients, and organic matter.
 - Lower food webs: year-round monitoring of plankton, neuston, benthic and littoral macroinvertebrates, drift invertebrates, and other lower foodweb components important for fish diets.
 - Fishes: year-round monitoring of salmonid and sturgeon spawning and rearing population abundance and distribution, escapement and juvenile passage estimates and migration routes, and any other elements required to assess Biological Goals.

Comprehensive BDMEP

- Traditional Ecological Knowledge (TEK)
 - Board will work with Tribes to incorporate TEK in the BDMEP to the extent practicable
 - Partner monitoring with Tribes may help fulfill monitoring requirements and geographic gaps
 - Any component incorporating TEK will follow the CARE principles
- HABs
 - Board will work with Regional Water Boards and other appropriate entities to develop and implement a Delta-wide HAB monitoring program
- Special studies
 - BDMEP will identify any needed special studies
 - Responsibility for conducting special studies will be determined through water right and water quality actions while guidance on the special studies will be identified in the BDMEP, including any future revisions

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Next Meeting

Jan. 28	<i>Inflow Objective and Program of Implementation</i>	Feb. 13	Provisions for Continuation, Modification, or Termination of VAs*
Jan. 29	<i>Cold Water Habitat Objective and Program of Implementation</i>	Feb. 19	<i>VA* Habitat Commitments and Accounting Provisions</i>
Jan. 30	<i>Inflow-Based Delta Outflow Objective and Program of Implementation</i>	Feb. 20	<i>Monitoring and Evaluation for VA* Provisions</i>
Feb. 4	<i>Methodology to Determine Water Unavailability and Implement Bay-Delta Plan</i>	Feb. 27	<i>VA* Flow Commitments and Accounting</i>
Feb. 5	<i>Monitoring and Evaluation for Regulatory Provisions</i>	Mar. 4	<i>Tribal Provisions</i>



Register via links provided in January 3 letter:

www.waterboards.ca.gov/bay_delta/docs/2025/ltr-baydeltaplan-workmtgs.pdf

**Voluntary Agreements, also referred to as the Healthy Rivers and Landscapes Proposal*

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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