

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

Working Meeting #3: Cold Water Habitat
Objective and Program of Implementation



January 29, 2025

Attendees

Welcome to Today's Meeting

- Facilitator
 - Meagan Wylie, Zephyr Collaboration
- Presenter
 - Dr. Matt Holland, 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

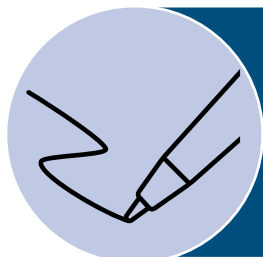
Purpose of Today's Meeting



Discuss the cold water habitat objective and program of implementation 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

- Narrative cold water habitat objective
- Tributaries and reservoirs subject to cold water habitat provisions
- Carryover storage requirements
- Long-term temperature management strategies
- Annual temperature management plans

Guiding Questions

- 1) What, if any, modifications should the Board consider to the narrative cold water habitat objective (p. 56)?
- 2) What, if any, modifications should the Board consider to the list of those subject to initial cold water habitat implementation actions in Table 6 (p. 57)?
- 3) What, if any, modifications should the Board consider to the end of September carryover storage requirements in Table 7? Specifically, should the Board consider other types or sources of information to inform initial carryover storage requirements (pp. 58-59)?
- 4) What, if any, provisions in the draft Bay-Delta Plan should the Board consider modifying to prioritize temperature management over spring flows (pp. 51-52 and 54-55)?
- 5) What, if any, modifications should the Board consider to the components of the long-term temperature management strategies and annual temperature operations plans (p. 58)?
- 6) Should the Board consider modifications to the required timeline and provisions for implementation of the cold water habitat objective (p. 52)?

Narrative Cold Water Habitat Objective

COMPLIANCE LOCATIONS	PARAMETER	DESCRIPTION (UNIT)	WATER YEAR TYPE	TIME PERIOD	VALUE
SACRAMENTO RIVER/DELTA COLD WATER HABITAT					
Sacramento River and its tributaries and Delta eastside tributaries	Cold water habitat	Narrative	All	Year round	Maintain streamflows and reservoir storage conditions on Sacramento River/Delta tributaries to protect cold water habitat for sensitive native fish species, including Chinook salmon, steelhead, and other native cold water fish species. Cold water habitat conditions to be protected include maintaining sufficient quantities of habitat with suitable temperatures on streams to support passage, holding, spawning, incubation, and rearing while preventing stranding and dewatering due to flow fluctuations.

Reference: Table 3. Water Quality Objectives for Fish and Wildlife Beneficial Uses (p. 18)

Tributaries and Reservoirs Subject to Cold Water Habitat Provisions

- Cold water habitat objective applies on all Sacramento/Delta tributaries subject to the inflow objective, and requires management of cold water storage and releases and/or alternative protection measures to ensure that fish below dams are kept in good condition consistent with Fish and Game Code section 5937
- Cold water habitat implementation actions are to be integrated with the inflow implementation actions, including the adaptive implementation actions
- All water right holders who affect temperature management are subject to the cold water habitat objective
- Rim reservoir owners/operators identified in Table 6 would be required to undertake specific initial implementation actions
- To the extent that other water right holders also affect temperature management, they may also be subject to undertaking actions as part of the implementation process for the cold water habitat objective after opportunity for public review and comment, including as a result of annual or periodic review

Table 6. Reservoirs and Water Right Holders Subject to Initial Cold Water Habitat Implementation Actions on the Sacramento/Delta Tributaries

Tributary	Reservoir	Reservoir Owner/Operator
Clear Creek	Whiskeytown Reservoir	Reclamation
Feather River	Oroville Reservoir/Thermalito Afterbay	DWR
Yuba River	New Bullards Bar Reservoir	Yuba County Water Agency
Bear River	Camp Far West Reservoir	South Sutter Water District
American River	Folsom Reservoir/Lake Natoma	Reclamation
Sacramento River	Shasta Reservoir/Keswick Reservoir	Reclamation
Mokelumne River	Pardee Reservoir/Camanche Reservoir	East Bay Municipal Utility District
Calaveras River	New Hogan Reservoir	Stockton East Water District
Stony Creek ¹	Black Butte Reservoir	Reclamation
Putah Creek	Lake Berryessa	Reclamation/Solano County Water Agency
Cache Creek ¹	Indian Valley Reservoir	Yolo County Flood Control & Water Conservation District

¹ Stony Creek and Cache Creek are initially not subject to carryover storage requirements but will be required to submit a long-term temperature management strategy.

Carryover Storage Requirements

- In the absence of an approved long-term temperature management strategy identifying alternative measures, including alternative carryover storage requirements, the water right holders and reservoir owners/operators identified in Table 6 (initially excluding Stony Creek and Cache Creek) must meet the initial end of September carryover storage requirements identified in Table 7
- Board would require implementation of initial end of September carryover storage requirements upon implementation of the inflow objective for each tributary as applicable
- After opportunity for public review and comment the Executive Director may approve adjustments to the carryover storage requirements based on best available scientific and technical information
- Water right holders and reservoir owners/operators subject to the initial carryover storage requirements may develop proposed modifications with appropriate supporting information and submit to the Executive Director for consideration as part of a long-term temperature management strategy

Table 7. 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)

Long-term Temperature Management Strategies Must:

- Either meet the carryover storage levels or alternate approved carryover storage levels while meeting applicable inflow objectives and other regulatory requirements
- Identify temperature targets and locations where those targets will be measured
- Identify decision-making processes for temperature management operations
- Identify modeling, monitoring, and assessment provisions to support development and implementation of temperature management operations
- Identify any appropriate adaptive management provisions
- Evaluate other available measures to improve temperature management, including passage, temperature control device measures, riparian habitat improvements, and other measures that will contribute to meeting the narrative cold water habitat objective and a timeline for implementing those measures

Long-term Temperature Management Strategies

- Must be submitted to the Executive Director for approval within one year of implementation of the numeric provisions of the inflow objective
- Will be subject to review and possible modification as needed as directed by the Executive Director after public review and opportunity for comment
- Executive Director may require upstream and downstream water right holders to participate in development and implementation of both long-term temperature management strategies and annual operations plans to the extent that operations affect achieving cold water habitat objective
- Board may undertake tributary specific temperature management proceedings as part of a public process as necessary to resolve needed cold water habitat management actions to implement the narrative cold water habitat objective

Annual Temperature Management Plans

- Water right holders and reservoir owners/operators identified in Table 6 to develop and submit annual temperature management plans by March 31 each year for Executive Director approval, unless alternate compliance date is approved
- Annual temperature management plans must:
 - Identify planned annual operations in compliance with approved long-term temperature management strategies
 - Describe how temperature protection will be achieved on the tributary in the upcoming year, including provisions for reservoir storage levels; reservoir releases; measures to avoid salmonid stranding and dewatering concerns; reservoir temperature control device operations; and other relevant provisions
 - Describe how end of September carryover storage requirements, or alternative approved measures, will be implemented in combination with the inflow objective
- Board will require implementation of temperature management plans as approved by the Executive Director

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Next Meeting

Jan. 28	<i>Inflow Objective and Program of Implementation</i>	Feb. 13	<i>Provisions for Continuation, Modification, or Termination of VAs*</i>
Jan. 29	<i>Cold Water Habitat Objective and Program of Implementation</i>	Feb. 19	<i>VA* Habitat Commitments and Accounting Provisions</i>
Jan. 30	Inflow-Based Delta Outflow Objective and Program of Implementation	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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