



Fact Sheet

Proposed Final Amendments and Final Substitute Environmental Document for Lower San Joaquin River Flow Objectives and Southern Delta Salinity Objectives

Overview

The San Francisco Bay/Sacramento-San Joaquin Delta Estuary includes the Sacramento-San Joaquin Delta (Delta), Suisun Marsh, and San Francisco Bay. California's two major rivers, the Sacramento and the San Joaquin, converge in the Delta and meet incoming seawater from the Pacific Ocean in San Francisco Bay. Vast numbers of species live in or migrate through the Delta, including salmon and other at-risk native fish. In addition, water diverted from the Delta helps meet the drinking water needs of more than two thirds of Californians and provides irrigation for millions of acres of productive farmland.

The Delta is in ecological crisis, with precipitous declines in native migratory fish species occurring over the past decades. Under state and federal law, the State Water Resources Control Board (State Water Board) is tasked with protecting the waters of this vital area. The Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Estuary (Bay-Delta Plan) is a key component of this protection. The State Water Board has engaged in a multi-year process to amend the Bay-Delta Plan to revise outdated objectives for the protection of fish and wildlife beneficial uses in the Lower San Joaquin River and agricultural beneficial uses in the southern Delta. That process included extensive public outreach, comment, and revision.

On July 6, 2018 the State Water Board released draft final plan amendments for the Lower San Joaquin River and Southern Delta objectives (Lower San Joaquin River/Southern Delta update) and a draft Final Substitute Environmental Document (draft Final SED), which provided the environmental analysis in support of the plan amendments. The draft final proposal would update water flow objectives in the Lower San Joaquin River and its major tributaries, the Stanislaus, Tuolumne, and Merced Rivers.

Additionally, because the Lower San Joaquin River drains into the southern Delta, the update also amends southern Delta salinity objectives. The new flow objectives recognize the need for flows of an adequate volume and more variable pattern on the three major tributaries to provide habitat and migratory signals and protections for native fish. The refined salinity objectives reflect updated scientific information about salt levels that reasonably protect farming in the southern Delta.

State Water Board Responsibility

The State Water Board holds dual responsibilities of allocating surface water rights and protecting water quality. The State Water Board allocates water through an administrative system that is intended to maximize the beneficial uses of water while protecting the public trust and serving the public interest. This requires an appropriate balancing of interests.

State and federal law requires the protection of the State's water quality and beneficial uses of water. Accordingly, the State Water Board and Regional Water Quality Control Boards develop water quality control plans that identify beneficial uses of waters and establish water quality objectives to protect these uses. The plans also contain implementation, surveillance, and monitoring elements to achieve the water quality objectives. While most water quality control planning is done by the Regional Water Quality Control Boards, the State Water Board has authority to adopt statewide water quality control plans. The State Water Board historically adopted the Bay-Delta Plan because of its importance as a major source of water supply for the state, and to help ensure a coordinated approach across Regional Board boundaries. In addition, because diversions of water within and upstream of the Bay-Delta are a driver of water quality in the Bay-Delta, much implementation of the Bay-Delta Plan relies upon the combined water quality and water right authority of the State Water Board. The Bay-Delta Plan protects water quality in the region and includes water quality objectives to protect municipal and industrial, agricultural, and fish and wildlife beneficial uses.

Updating the Bay-Delta Plan

In addition to Lower San Joaquin River/Southern Delta update, the State Water Board is in the midst of developing a proposal for updating flow requirements for the Sacramento River, its tributaries, and the Delta and its tributaries, including the Calaveras, Cosumnes, and Mokelumne Rivers, Delta outflow objectives, Delta interior flow objectives, and coldwater habitat objectives. The State Water Board is engaging in two watershed-based planning strategies in order to more fully take into account the distinct hydrologic, species, environmental, and water use characteristics of each region. Previously, for administrative convenience, the Lower San Joaquin River/Southern Delta update was referred to as phase 1, while the Sacramento/Delta update was referred to as phase 2.

At the same time that the Lower San Joaquin River/Southern Delta update is being released, the State Water Board released a framework that describes the draft proposal for updating the flow requirements for the Delta and its contributing watersheds, including the Sacramento River and its tributaries. This Framework document is a preview of a forthcoming draft staff report and allows the public to better understand how the two updates relate to one another and how each watershed is being asked to share responsibility for protecting fish and wildlife for the betterment of the entire Bay. This framework provides additional details about the likely proposed flow requirements, how these new requirements could be implemented, and preliminary information on their potential benefits and water supply effects.

Lower San Joaquin River/Southern Delta Plan Amendments

The State Water Board is proposing to update two elements of the 2006 Bay-Delta Plan. A brief description of the proposed amendments to the two elements is provided below followed by more detailed descriptions of important highlights of each:

- Lower San Joaquin River flow objectives for the protection of fish and wildlife: the proposed plan update would increase the required flows to be left in the three main salmon-bearing tributaries to the Lower San Joaquin River, the Stanislaus, Tuolumne, and Merced Rivers, during the critical February through June period, as well as increasing the variability of those flows and allowing the flows to be adaptively implemented to better achieve successful ecological functions. The update would also add compliance locations on the three tributaries instead of only on the Lower San Joaquin River at Vernalis.
- Southern Delta salinity objectives for the protection of agriculture: this proposal would adjust the salinity requirements to a slightly higher level to reflect updated scientific knowledge of Southern Delta salt levels that reasonably protect agriculture. Monitoring and compliance locations would be changed to better reflect overall salinity levels and protection of agriculture.

Lower San Joaquin River Flow Objectives

- The draft Final SED recommends increasing flow on the San Joaquin River and its tributaries to 40 percent of unimpaired flow within a range of 30 to 50 percent from February through June. Unimpaired flow represents the water production of a river basin, unaltered by upstream diversions, storage, or by export or import of water to or from other watersheds. Historical median February through June flows from 1984–2009 in the Merced, Tuolumne, and Stanislaus Rivers were, respectively, 26, 21, and 40 percent of unimpaired flow. In other words, half of the time more than 60 or 70 percent of each river's flow is diverted out of the river during these months and the proposal seeks to return some portion of that diverted flow to the river.
- Scientific studies show that flow is a major factor in the survival of fish like salmon and that current flows are inadequate to protect many endangered and threatened species, as well as species relied upon by the commercial fisheries. The draft Final SED recognizes that other factors, like predation and loss of habitat, affect fish populations, and the draft Final SED encourages and incentivizes habitat restoration and other “non-flow” actions that are complimentary to the flow objectives.
- The unimpaired flow requirement is designed to mimic the natural cues that species have evolved to respond to, but is not intended to be a rigid and fixed percent of unimpaired flow. The proposal provides for and encourages collaboration to use the flows as a “water budget” that can provide flow that are “shaped” or shifted in time to better achieve ecological functions such as increased habitat, more optimal temperatures, or migration cues. Adaptive implementation of flows allows a nimble

response to changing information and changing conditions while minimizing unintended impacts and can provide more timely and efficient use of flows than an inflexible regime of prescriptive flow rates.

- In addition to increasing instream flow levels, the draft final update differs from the existing Bay-Delta Plan in that it requires flows from each of the three major salmon-bearing tributaries to the lower San Joaquin River. The existing plan measures flows at Vernalis on the San Joaquin River, and puts the burden for maintaining flow entirely on the U.S. Bureau of Reclamation through releases of water from New Melones Reservoir on the Stanislaus River. The draft plan recognizes the importance of balancing the flow requirements among the three tributaries, and the need for flow on all three to restore and protect the populations of migrating fish in those rivers throughout their lifecycles.
- The draft Final SED recognizes that reduced diversions can create financial and operational challenges for local economies. The flow requirement considers the needs for fish and wildlife along with the needs of agriculture and local economies. Some will find the requirement too “high,” and others will find it too “low.” The proposed flow requirements are designed to provide reasonable protection for fish and wildlife without imposing undue burdens on water users.
- The draft final plan amendments incorporate flexibility so that stakeholders are encouraged to work together to reach voluntary agreements that could implement Bay-Delta Plan objectives for fish and wildlife beneficial uses. Voluntary actions to implement non-flow measures such as habitat restoration, gravel augmentation, and predator suppression can improve conditions for fish and wildlife and may support a change in the flows within the 30 to 50 percent range. While the revised amendments enhance flexibility, the Board remains interested in receiving potential plan amendment language which would authorize, with the affirmative concurrence from the California Department of Wildlife, a coordinated control of flows and other, non-flow factors that would achieve benefits comparable to the unimpaired flow requirements. In this way, people working together can yield comparable or better benefits to fish and wildlife at lower water supply cost. The State Water Board cannot order these collaborative efforts in a regulation, but can accept them if offered.
- The draft final plan amendments also encourage local water agencies, fish and wildlife agencies and other experts to work with State Water Board staff in a working group that will make recommendations on how best to implement the flow objectives within the proposal framework. The Executive Director can approve, on an annual basis, the recommendations of one or more working group members to shape or shift flows or the consensus recommendation of the working group to change the percent of unimpaired flow within the range.
- The draft final plan amendments also give the State Water Board the flexibility to

respond to new information or take longer-term adaptive implementation measures. The Board can approve, on an annual or multi-year basis, flow shaping, shifting or changes in the percent of unimpaired flow within the range. For example, the State Water Board could approve a multi-year voluntary agreement that includes flows within the range and non-flow actions.

- The plan amendments include a robust process for constantly learning and adapting to best available information with monitoring, special studies, coordination, and evaluation. Transparency of both actions and data are a central feature of the proposal with annual reporting and then comprehensive reporting every three to five years that includes peer-review and public meetings.
- Biological goals, including for salmon population growth, distribution, and other factors, will be among the tools that inform future State Water Board decisions on whether to adjust the unimpaired flow percentage. Adaptive implementation can optimize flows and consider improvements in biological conditions that support native fish when making decisions about flow adjustments.
- While carefully considering the comments received, the draft final plan concludes the recommended flow requirements are necessary for recovery of fish populations. Scientific studies indicate a flow closer to 60 percent of unimpaired flow would improve conditions for a healthy fishery. On the other hand, a 60 percent flow requirement would cause more significant economic damage to water users. It is the State Water Board's task to balance competing beneficial uses for water.

Southern Delta Salinity Objectives

- The recommended amendment to the southern Delta salinity objective (southern Delta salinity proposal) would eliminate the seasonal element of the objective by raising the current April through August objective of 0.7 deciSiemens per meter [dS/m] to the same level as the current September through March objective of 1.0 dS/m for an objective of 1.0 dS/m year-round.
- Analysis of southern Delta water quality and crop salinity requirements shows that the existing salinity conditions in the southern Delta are suitable for all crops and that the existing April through August salinity objective is actually lower than what is needed to reasonably protect agriculture.
- The United States Bureau of Reclamation (Reclamation) would be required to continue to comply with the 0.7 dS/m salinity level for the Lower San Joaquin River at Vernalis as a condition of its water rights. Reclamation's activities associated with operating the Central Valley Project in the San Joaquin River basin are a principle cause of salinity exceedances at Vernalis and maintaining a salinity level of 0.7 dS/m at Vernalis is needed to implement the 1.0 dS/m objective downstream in the interior Southern Delta.

- The revised water quality objectives coupled with the implementation measures included in the Bay-Delta Plan update would provide the same or better conditions for agricultural uses in the Delta, as compared to existing conditions through the continuation, or improvement, of existing management actions, including maintenance of water levels.
- The proposal includes requirements that the State Water Project and federal Central Valley Project address the impacts of their export operations on water levels and flow conditions that may affect salinity conditions in the southern Delta.
- The southern Delta salinity proposal would also replace the three current fixed points for monitoring southern Delta salinity compliance, and instead identifies three extended channel segments for monitoring conditions and measuring compliance.
- Increased February through June flows under the San Joaquin River flow element would improve salinity conditions in the southern Delta early in the irrigation season.

Public Comments

- On September 15, 2016 the State Water Board released draft amendments to update the Lower San Joaquin River/Southern Delta objectives (draft plan amendments) and a Recirculated Substitute Environmental Document (Recirculated SED). There was a six-month long comment period on the draft plan amendments and Recirculated SED. This is the longest public comment period the State Water Board has ever held. Initially, the plan was released for a 60-day public review from September 15, 2016 to November 15, 2016. In response to requests from the public, including stakeholders who asked for additional time to negotiate voluntary agreements that would implement the flow objectives, the 60-day review period was extended twice: first from November 15, 2016 to January 17, 2017, and then from January 17, 2017 to March 17, 2017.
- The State Water Board received over 1,400 unique comment letters on the draft plan amendments and Recirculated SED from federal, state, and local agencies; elected officials; stakeholders; and other members of the public. The State Water Board also conducted a public hearing over five days and in four locations (Stockton, Modesto, Merced, and Sacramento) to receive oral comments on the draft plan amendments and Recirculated SED. The public hearing occurred between November 2016 and January 2017.
- The State Water Board appreciates the active engagement of the public and stakeholders in the water quality control planning and environmental review processes, and acknowledges the plan amendments are controversial with some members of the public and stakeholders. Comments were received from both ends of the spectrum—with many in favor, and opposed, including individuals, local, regional

and statewide organizations, and elected officials, expressing strongly held views that the amendments are not strict enough or that they are too strict. Amending the Bay-Delta Plan presents many complex and challenging issues, and the State Water Board appreciates the efforts of all parties that reviewed the draft plan amendments and Recirculated SED and submitted comments. The comments were thoughtful and covered a broad range of policy and environmental issues. Major topic areas that elicited frequent comments included agricultural resources, regional economies, groundwater resources, fish and wildlife ecological health, commercial fishing, drinking water, disadvantaged communities, the water quality control planning process, project alternatives, hydrology, and hydrologic modeling.

- The State Water Board considered all comments, criticisms, and suggestions in determining whether and how to modify the draft plan amendments. The draft Final SED (at Volume 3) provides written responses to all comments received during the comment period. The responses represent the State Water Board's best effort to carefully and objectively review and consider the comments and supporting information provided by commenters.
- The proposed draft Final SED represents the conclusion of an extended public outreach and environmental analysis process. The State Water Board issued a Notice of Preparation for the update in 2009. A Draft SED was released in 2012 and substantial changes were included in the Recirculated SED in response to comments on the 2012 Draft. Examples of these changes include incorporating information from the recent drought, and recognizing the enactment of the 2014 state policy for sustainable groundwater management (Wat. Code, § 113) and passage of the Sustainable Groundwater Management Act (Wat. Code, § 10720 et seq.). In addition, clarifying modifications were made to the plan amendments, after consideration of all comments received on the Recirculated SED. The modifications can be reviewed in the draft Final SED, Appendix K, Revised Water Quality Control Plan, and an explanation of the modifications is provided in Volume 3, Master Response 2.1, *Amendments to the Water Quality Control Plan*.

Next Steps

The draft final amendments can be found in Appendix K of the draft [Final SED](#). After consideration of public input, the text of the proposed amendments was modified. Those revisions are identified in double strikeout and double underline in the draft final amendments. The State Water Board is accepting written comments on the changes contained in Appendix K that are identified in double strikeout/double underline.

Written comment letters on changes to Appendix K must be received by 12 p.m. (noon) on Friday, July 27, 2018. Late written comments will not be accepted. The State Water Board will not accept or consider any written comments on the draft Final SED. The meeting notice and instructions for submitting comments on the revisions can be found [here](#).

This is a draft final staff proposal and draft Final SED for consideration by the State Water Board's members. The State Water Board members will consider the draft Final SED before approving the project, and the SED will become final upon project approval. The State Water Board will begin consideration of whether to adopt the proposed final amendments and proposed Final SED at a public meeting commencing on August 21, 2018. A notice of the meeting has been provided and is available on the Board's website [here](#).

An expanded summary of the proposed updates to the Bay-Delta Plan is available [here](#).

(This fact sheet was last updated on July 6, 2018.)