Santa Clara Valley Water District

NON-AGENDA

July 13, 2018

Board Policy: EL-7 Communication and Support to the Board

The BAOs shall inform and support the Board in its work.

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3	**CEO Bulletin:** 07/06/18 – 07/12/18
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9	Memo from Nina Hawk, COO/WUE, to the Board, dated 07/13/18, regarding the State Water Board release of proposed amendments to the Bay-Delta Water Quality Control Plan.
29	Memo from Nina Hawk, COO/WUE, to the Board, dated 07/13/18, regarding the Draft Agreement in Principal for the State Water Project Contract Amendment for Water Management and California WaterFix.
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42	**Board Correspondence Weekly Report:** 07/13/18
43	News article from John Vidovich to Director Kremen, dated 06/29/18, regarding the differences in water costs between the east and west coasts (C-18-0131).
44	Email from Barbara Daly, North Delta CARES Action Committee, to the Metropolitan Water District (cc: BOD), dated 07/09/18, regarding California WaterFix (C-18-0132).
49	Email from Libby Lucas to the Board, dated 07/10/18, regarding the Lehigh Cement Water Quality Plant's discharges to Permanente Creek (C-18-0133).
50	Email from Kevin Farmer to Director Keegan, dated 07/11/18, regarding a listening session for watershed project sponsors and their partners (C-18-0134).
52	Email from Steve Bisordi to the Board, dated 07/12/18, regarding the Cordoba Center EIR meeting (C-18-0135).
	OUTGOING BOARD CORRESPONDENCE
54	Reply email from Chair Santos to Maribel Montanez, Gardner Health Services, dated 07/13/18, regarding sponsorship for their 50th Anniversary Celebration (C-18-0130).
55	Reply email from Chair Santos to Rowan Pike, dated 07/13/18, regarding District right of way at the corner of Lelong and Willow streets in San Jose (C-18-0124).

Board correspondence has been removed from the online posting of the Non-Agenda to protect personal contact information. Lengthy reports/attachments may also be removed due to file size limitations. Copies of board correspondence and/or reports/attachments are available by submitting a public records request to publicrecords@valleywater.org.

CEO BULLETIN/ NEWSLETTERS

CEO BULLETIN

Santa Clara Valley Water District

To: **Board of Directors**
From: **Norma J. Camacho, CEO**

Chief Executive Officer Bulletin
Week of July 6 - July 12, 2018

Board Executive Limitation Policy EL-7:
The Board Appointed Officers shall inform and support the Board in its work. Further, a BAO shall 1) inform the Board of relevant trends, anticipated adverse media coverage or material external and internal changes, particularly changes in the assumptions upon which any Board policy has previously been established and 2) report in a timely manner an actual or anticipated noncompliance with any policy of the Board.

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3	Meeting with Regional Water Quality Control Board (RWQCB)
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The State Board's Water Quality Control Plan

An update on the State Board's Quality Control Plan has been provided to the board in the July 13 (or 6th), 2018, Non-Agenda packet.

For further information, please contact Nina Hawk at (408) 630-2750.

Shoreline Receives Disaster Supplemental Funding

On July 5, 2018, the U.S. Army Corps of Engineers (USACE) Headquarters released its Disaster Supplemental Funding announcement for USACE projects, and the district's South San Francisco Bay Shoreline Project (Shoreline) was awarded full federal funding in the amount of $177,200,000.

The district has long advocated for funding from a variety of sources for the Shoreline project. During the district's advocacy trip to Washington D.C. in April 2018, Chair Santos led the district team in advocating for Shoreline to receive full funding through both the USACE's Fiscal Year (FY) 18 Work Plan and the new Disaster Supplemental funding source. Vigorous advocacy efforts continued with our delegation and the USACE following the trip. With the award of these Disaster Supplemental funds, the federal government's full share of construction dollars is covered, a formal New Start designation is no longer needed, and Shoreline is now cleared to move forward with construction.

Under the board's leadership, the district will continue to advocate for and secure additional funding for this landmark project through other funding streams, including state subventions and the Measure AA process to keep this critical project moving forward.

Additionally, On July 24, 2018, the district will be holding a media event and tour of the Shoreline Project for State Senator Bob Wieckowski, who authored State Senate Bill 881. If signed by the Governor, the bill would provide an additional $4 to $7 million in state subventions funding for the Shoreline project. Senator Wieckowski will be on hand alongside Chair Richard Santos to explain how the bill will benefit the Shoreline project and the region's residents and businesses. A tour will also be taken of the Shoreline Project's Economic Impact Area 11, which will be the first phase constructed.

The Disaster Supplemental Funding announcement also named the Downtown Guadalupe Project as one of the recipients to receive funding on the short-term repair list of flood protection projects. A total allotment of $644,980,491 that will go to approximately 80 other flood protection projects on this list. The funding amounts for each of the listed projects have yet to be announced. The district will be closely monitoring this news and will follow-up on the potential funding that this project is expected to receive.

For further information, please contact Rachael Gibson at (408) 630-2884.

Meeting with Regional Water Quality Control Board (RWQCB)

On July 5, 2018, Chair Santos, Director Estremera and Watersheds Chief Melanie Richardson attended a meeting with San Francisco Bay Regional Water Quality Control Board (RWQCB) Chair Terry Young, their Executive Officer Bruce Wolfe, and their staff. The purpose of the meeting was to discuss how the two (2) agencies could improve collaboration efforts to facilitate district work and regulatory permitting from RWQCB. The district continues discussion with RWQCB staff on the need to provide adequate mitigation for impacts from our projects and to consider projects that improve environmental habitat under our stewardship mission. It was mutually agreed upon that it is beneficial for both agencies to have staff engaged earlier in the planning phase of each project and consider a holistic perspectives of an entire creek when planning for capital improvement projects.

For example, the Mid-Coyote Creek Flood Protection Project, Fisheries and Aquatic Habitat Collaborative Effort, and Anderson Dam Seismic Retrofit Project have elements in Coyote Creek; collaboration amongst those projects can provide better benefits to aquatic habitat and facilitate faster regulatory permitting.

For further information, please contact Melanie Richardson at (408) 630-2035.

Delta Conveyance Finance Authority Board of Directors Meeting Scheduled on July 19, 2018

The Delta Conveyance Finance Authority (Finance Authority) Board of Directors Meeting has been scheduled for July 19, 2018, at 11:00 am, located at 1121 L Street, Suite 1045, Sacramento, CA, 95814.

The five (5) participating agencies of the Finance Authority are as follows: Alameda County Water District, Alameda County Flood Control and Water Conservation District Zone 7, Metropolitan Water District of Southern California, San Gorgonio Pass Water Agency, and the water district.

The board approved participation in the Finance Authority at a special board meeting held on July 6, 2018. The board approved the execution of the Finance Authority Joint Powers Agreement (JPA), adopted a resolution for approval of the Finance Authority JPA.

Director Gary Kremen is designated as the primary representative, and Director Nai Hsueh as the alternate representative. Director Kremen will be attending the July 19, 2018, Finance Authority meeting to represent the district.

For further information, please contact Darin Taylor at (408) 630-3068.

BOARD MEMBER REQUESTS & INFORMATIONAL ITEMS

Request	Completed Date	Meeting Date	Director	GM / AGM	Description	20 Days Due Date	Expected Completion Date	Disposition
R-18-0013	Pending	06/26/18	Keegan	Comelo	Director Keegan requested that staff provide the Board with the status and report on the last major District-wide security assessment and proivde a schedule for the next assessment.	07/22/18		
R-18-0014	Pending	06/12/18	Keegan	Richardson	Director Keegan requested that staff look at the potential for Debra Butler to parcipate in the District's lessons learned activity on the San Francisquito Creek Flood Protection Project.	07/31/18		
R-18-0012	Pending	06/26/18	Lezotte	Hawk Callender	The Board requested staff to schedule a tour of the Pacheco Reservoir for Board members as well as regular periodic tours for the public.	07/22/18		

Request	Completed Date	Request Date	Director	GM / AGM	Description	20 Days Due Date	Expected Completion Date	Disposition
I-18-0006	Pending	04/24/18	Hsueh	Richardson	Director Hsueh requests staff prepare a draft response to the October 21, 2016 Saratoga Creek petitioners for the May 22, 2018, Board Meeting.	05/14/18	08/28/18	06/26/18 Information Only.
I-18-0009	Pending	06/26/18	Hsueh	Comelo	The BPPC requested that staff provide Mr. Muirhead with a copy of the District's standard practice on the consultant selection and purchasing processes, and their applicability with regulations and other agency's standard processes.	07/29/18		

Santa Clara Valley Water District

MEMORANDUM

FC 14 (01-02-07)

TO: Board of Directors

FROM: Nina Hawk

SUBJECT: State Water Board Releases Proposed Amendments to Bay-Delta Water Quality Control Plan (Bay-Delta Plan)

DATE: July 13, 2018

On July 6, 2018, the State Water Board released its third and final draft proposal for changes to the water quality and flow objectives for the Lower San Joaquin River and its tributaries. The proposed amendments increase water flows through the Lower San Joaquin, Stanislaus, Tuolumne and Merced rivers and relax the southern Delta salinity objective. The State Water Board also released a framework that describes the draft proposal for updating the flow requirements for the Sacramento River and its tributaries, Delta outflow and interior flow objectives, and coldwater habitat objectives. The media release, a fact sheet, and a summary of the proposed amendments are provided as Attachments 1, 2 and 3, respectively.

Roughly 55% of Santa Clara County's water supplies are provided by the State Water Project (SWP), Central Valley Project (CVP), and San Francisco Public Utilities Commission's Regional Water System (SFPUC). The SWP and CVP are responsible for meeting many of the objectives in the current Bay-Delta Plan, and SFPUC diverts water from the Tuolumne River; therefore, any changes to the plan could have significant impacts on Santa Clara County's imported water supplies. SFPUC and District staff analyses of the previous draft amendments indicated that the proposed flow requirements for the Tuolumne River, which appear to be unchanged in the current draft, could result in significant impacts to Santa Clara County.

District staff have provided oral and written comments throughout the nine-year amendment process and will review the latest documents by the July 27, 2018 deadline for public comments. The State Water Board will consider adopting the proposed San Joaquin River amendments at a public meeting on August 21, 2018.

More information can be found at the following website:

https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/

Nina Hawk
Chief Operating Officer
Water Utility Enterprise

Attachment 1: Media Release
Attachment 2: Fact Sheet
Attachment 3: Summary of Proposed Amendments

Media Release

State Water Board Seeks Public Comment on Final Draft Bay-Delta Plan Update for the Lower San Joaquin River and Southern Delta

Framework for updating Sacramento/Delta flow requirements also released

For Release:
July 6, 2018

Contact: Tim Moran
Timothy.Moran@waterboards.ca.gov

SACRAMENTO – Following nine years of research and extensive public outreach, the State Water Resources Control Board today released a final draft plan to increase water flows through the Lower San Joaquin River and its tributaries—the Stanislaus, Tuolumne and Merced rivers—to prevent an ecological crisis, including the total collapse of fisheries.

"The San Francisco Bay-Delta is an ecosystem in crisis. The Board's challenge is to balance multiple valuable uses of water—for fish and wildlife, agriculture, urban, recreation, and other uses," said State Water Board Chair Felicia Marcus. "Californians want a healthy environment, healthy agriculture, and healthy communities, not one at the expense of the others. That requires the water wars to yield to collective efforts to help fish and wildlife through voluntary action, which the proposed plan seeks to reward."

Release of the third and final draft of the Bay-Delta Water Quality Control Plan update for the Lower San Joaquin River and Southern Delta, and an accompanying Substitute Environmental Document, follows a nine-year process during which the Board studied and analyzed options, conducted extensive public outreach, including public hearings in the area, and reviewed more than 1,400 comment letters. The Board will begin consideration of the final draft plan in August.

The State Water Board also announced further progress on its effort to update flow requirements for the Sacramento River, its tributaries, and the Delta and its tributaries, including the Calaveras, Cosumnes and Mokelumne rivers. This update is at an earlier stage procedurally than the Lower San Joaquin River/Southern Delta plan update; a draft proposed plan and staff report analyzing alternatives will be released later this year for public review and comment.

The two Bay-Delta Plan updates are aimed at addressing an ecological crisis in the Delta and preventing further collapse of Bay-Delta fisheries. A dramatic decline in the populations of native fish species that migrate through and inhabit the Delta has brought some species to the brink of extinction. Approximately 70,000 fall-run Chinook salmon adults returned to the San Joaquin Basin in 1984. The number of returning adults dropped to approximately 40,000 in 2010 and again to 8,000 returning adults in 2014.

While multiple factors are to blame for the decline, the magnitude of diversions out of the Sacramento, San Joaquin, and other rivers feeding into the Bay-Delta is a major factor in the ecosystem decline.

The draft final Lower San Joaquin River/Southern Delta update includes improved instream flows February through June, which are the critical months for protecting migrating fish on the Stanislaus, Tuolumne and Merced rivers. These flows are measured as a percentage of "unimpaired flow," the amount of water that would come down the river if there were no dams or other diversions.

A 40 percent of unimpaired flow requirement, within a range of 30 to 50 percent, is proposed as an appropriate balance for this plan update because it can improve conditions for fish and wildlife considerably without more challenging impacts on other water users. Currently, flows remaining in the rivers can run as low as 10 to 20 percent of unimpaired flow at critical times of the year and range from 21 to 40 percent on average for the three tributaries.

The unimpaired flow requirement is not intended to be a rigid and fixed percent of flow. The proposal provides for and encourages collaboration to use the flows as a block of water or "water budget" that can be allocated to "shape" or shift flows in time to better achieve ecological functions such as increased habitat, more optimal temperatures, or migration cues.

The draft plan recognizes that other "non-flow" factors, such as habitat loss, predation and pollution, affect survival rates of fish and other species. The plan would allow reduced river flows if stakeholders step up to pursue non-flow measures to improve conditions for fish and wildlife. Negotiations for voluntary agreements are taking place between stakeholders and the California Natural Resources Agency and its departments.

The draft final update also includes a revision of the salinity standard for the southern Delta. Maintaining an adequate amount of fresh water in the southern Delta is critical to protecting agriculture in the region. The year-round salinity standard in the draft final update increases slightly from the current seasonal standards, based on salinity tolerance studies of sensitive crops.

After consideration of public input, the draft text of the Proposed Final Amendments was modified. Those revisions can be found in Appendix K of the Draft Final Substitute Environmental Document here. The State Water Board is accepting written comments on those changes until 12 p.m. (noon) on Friday, July 27, 2018. The public notice and instructions for submitting comments on the revisions can be found here.

A summary of the modifications and discussion of the changes can also be found in Volume 3, Master Response 2.1, *Amendments to the Water Quality Control Plan* here. Board consideration of the Bay-Delta Water Quality Control Plan Update for the Lower San Joaquin River and Southern Delta will begin in August.

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Water Boards

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 wells 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.)

Summary of Proposed Amendments to the Bay-Delta Water Quality Control Plan

July 6, 2018

Introduction

The San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Bay-Delta) is a critical part of California's water supply system and an ecosystem in crisis. The Bay-Delta includes the Sacramento–San Joaquin Delta (Delta), Suisun Marsh, and San Francisco Bay. California's two largest rivers, the Sacramento and the San Joaquin, converge in the Delta and meet incoming seawater from the Pacific Ocean in San Francisco Bay. The Bay-Delta is a critically important natural resource for California and the nation. It is both the hub of California's water supply system and the most valuable estuary and wetlands system on the west coast, serving cities, farms, fishing communities, boaters, and fish and wildlife.

The Bay-Delta was once a vast tidal marsh teeming with fish and wildlife, including several iconic species, such as Chinook salmon. Reclamation of farmland in the Delta and diversion of water through and from the Bay-Delta led to vibrant farming and urban development throughout California, which co-existed with native fish and wildlife for decades. In more recent years, increasing water diversions and land reclamation for urban and agricultural development have played significant roles in the precipitous decline of fish and wildlife species. Many of these species are now threatened or endangered. Some species are still able to marginally support important commercial fisheries. However, with the continued decline of these species, the future of these commercial fisheries is jeopardized.

Since passage of the Porter-Cologne Water Quality Control Act in 1969, and subsequent passage of the federal Clean Water Act and federal and State endangered species acts, state and federal agencies have taken steps to improve conditions for fish and wildlife while protecting water for cities and agriculture. Yet on balance, Californians continue to take more water out of the Bay-Delta and its tributaries than the species can withstand.

Many State and federal agencies are working on multiple fronts to protect, restore, and enhance the Bay-Delta, while considering water supplies for cities and agriculture. Evidence gathered over more than 10 years by researchers, the State Water Board, and state and federal fisheries agencies shows a crucial need to update the requirements for the benefit of both people and fish. The State Water Board has a unique role in Bay-Delta efforts. The Board establishes water quality objectives to protect human and fish and wildlife uses in the Bay-Delta Plan, and the Board uses its water rights and water quality authority to implement those water quality objectives.

The Bay-Delta Plan and the Proposed Amendments

The San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan (Bay-Delta Plan) establishes water quality objectives to protect uses of water in the Bay-Delta watershed, including drinking water supply, irrigation supply, and fish and wildlife habitat.

On July 6, 2018, State Water Board staff released a proposed final substitute environmental document (proposed Final SED) in support of amendments to the Bay-Delta Plan to adopt new and revised flow water quality objectives for the Lower San Joaquin River and its three salmon-bearing tributaries, the Stanislaus, Tuolumne, and Merced Rivers, revised salinity water quality objectives in the southern Delta, and a program of implementation. The new flow objectives recognize the vital role upstream flows provide for habitat and migration of threatened and endangered fish. The revised salinity objectives reflect updated scientific information about salt levels that are suitable for agriculture in the southern Delta.

While the proposal focuses on the Lower San Joaquin River and its tributaries and the southern Delta, the State Water Board is also 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. In furtherance of this effort, the State Water Board has released a Framework document that previews 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-Delta system.

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. For more information visit https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/.

Why is the State Water Board Updating the Bay-Delta Plan Now?

More than ten years ago, the State Water Board identified San Joaquin River flows and southern Delta salinity as priority issues that required additional evaluation and planning. Failure to address these issues now could result in draconian actions under the state or federal Endangered Species Act or federal action to establish water quality standards for the Bay-Delta. On the other hand, addressing these issues now provides a platform for responding to future droughts, adapting to climate change, and improving water resource management.

The changes would amend the Bay-Delta Plan, which establishes water quality requirements for the Bay-Delta and lays out water quality objectives that protect various water uses, including drinking water, irrigation, fish and wildlife, and more. In establishing the water quality requirements, the State Water Board must consider all beneficial uses of water in determining how to reasonably protect particular uses. Rather than "choose" one use over another, the Board must "maximize" support of all the Bay-Delta's uses.

For more than a decade, continuing decline of the Bay-Delta ecosystem has reinforced the need for action. Several native fish species have been listed as protected under the State or federal Endangered Species Act. Water diversion from the San Joaquin River system has surpassed the watershed's ability to support healthy fish populations. As described more fully below, the Bay-Delta Plan amendments are 1) addressing factors that contribute to the decline of key fish species, 2) incorporating new science in State

Water Board planning processes, and 3) providing a framework for voluntary agreements that enhance fish and wildlife.

As part of the 2009 Delta Reform Act, the California Legislature directed the State Water Board to develop flow criteria to protect Bay-Delta public trust uses. Keeping with the prescribed direction of the legislation, the Board's 2010 report *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem* (Delta Flow Criteria Report) presents a technical assessment of flow and operational requirements to protect fish under existing conditions without balancing fish needs with other uses of water. The report determined that 60 percent of the unimpaired flow of the San Joaquin River from February through June and 75 percent of the unimpaired flow on the Sacramento River and its tributaries was necessary to preserve the attributes of a natural, variable system to which native fish species are adapted. The report also pointed to the need for more natural and variable flows on the Stanislaus, Tuolumne, and Merced Rivers to provide adequate conditions for salmon spawning, rearing, and migration throughout the fish species of concern's lifecycle.

The Delta Flow Criteria Report reviews the scientific basis for modifying the amount and timing of flows on the three tributaries, but the report was not designed to look at, nor did it look at, the effect that increasing unimpaired flow would have on other competing uses of water or the environment, which is something that the State Water Board must do in setting flow objectives. This analysis is presented in the proposed Final SED. The proposed Final SED includes information on which the State Water Board can consider recommendations for new flow and salinity objectives along with their costs, impacts, and benefits.

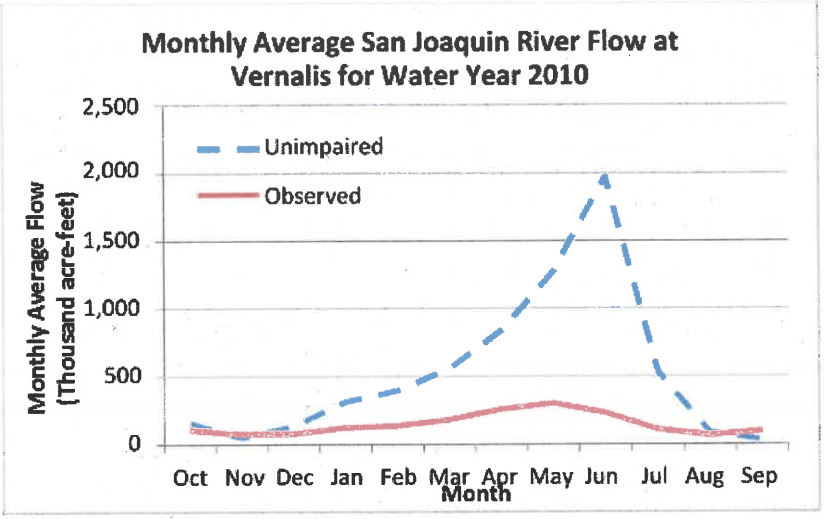
New Flow Objectives

The current Bay-Delta Plan defines a specific flow objective at a single point on the Lower San Joaquin River below the confluence of the tributaries (at Vernalis), but there are no existing flow objectives for the Stanislaus, Tuolumne, or Merced Rivers, and these tributaries are not now required to contribute to San Joaquin River flow at Vernalis. The new flow objectives require a portion of flow be maintained in all three tributaries during certain times of year to ensure suitable habitat and migratory pathways for native fish. Both the Delta Flow Criteria Report and the State Water Board's peer-reviewed February 2012 *Technical Report on the Scientific Basis for Alternative San Joaquin River Flow and Southern Delta Salinity Objectives* (Scientific Basis Report) explain the need for increased flows of a more variable and natural pattern in the tributaries and Lower San Joaquin River to help provide the conditions to which species have evolved over the centuries.

The State Water Board is amending the Bay-Delta Plan to reasonably protect fish and wildlife and address the balance of instream needs and human uses. The new flow objectives will enhance water flows upstream of the Delta to support the migratory and spawning habitat of native fish. As recommended in the Delta Flow Criteria Report and Scientific Basis Report, the new flow objectives require a portion of unimpaired flow be maintained in each of the tributaries from February through June.

Unimpaired flow is the quantity and rate of water that would collect in a river from rain and snowmelt and move downstream if there were no reservoirs or diversions to change the

amount and timing of the flow. Unimpaired flow generally mimics the natural flows on which fish and wildlife have evolved and depend. As illustrated in the figure below, observed flows in the San Joaquin River are far lower than unimpaired flows even in years of above-normal unimpaired flow, like 2010, due to diversion of water to reservoirs and deliveries for immediate uses such as municipal or irrigation water supply.



Like the San Joaquin River, flows in the tributaries are also far lower than unimpaired flows due to diversion of water. The new flow objectives do not call for flows equal to natural, pre-development conditions. Instead, each tributary will be required to maintain 40 percent of unimpaired flow, within a range of 30 to 50 percent, from February through June.

From 1984 to 2009, median February through June flows in the Merced, Tuolumne, and Stanislaus Rivers were 26, 21, and 40 percent of unimpaired flow, respectively. This means that half of the time, flows in the tributaries were less, and in some cases far less, than 40 percent of unimpaired flow because of the extent of diversions to storage or for contemporary use. State Water Board analysis shows that 40 percent of unimpaired flow, within a range of 30 to 50 percent, will reasonably protect fish and wildlife while moderating impacts to water supply for human uses.

Adaptive Implementation

The program of implementation for the new flow objectives also includes an adaptive implementation framework. Under the adaptive implementation framework, the new flow objectives do not require rigid real-time adherence to a specific percent of unimpaired flow. Instead, the flow can be managed as a block of water or "water budget" to provide more functionally useful flows if scientific information indicates that this approach would better protect fish and wildlife beneficial uses. In this way, starting at 40 percent unimpaired flow within an adaptive range of 30 to 50 percent unimpaired flow can better supports the needs of fish and wildlife while moderating impacts on surface water supply for other beneficial uses.

For example, if the best available scientific evidence indicates that 35 percent of unimpaired flow in February and 45 percent of unimpaired flow in May would better meet the narrative water quality objective to protect fish and wildlife and any biological goals

adopted under the plan by providing additional habitat and optimal temperatures for migrating fish, a shift of some of the water from February to May by lowering the unimpaired flow requirement in February to 35 percent and increasing the unimpaired flow requirement in May to 45 percent could be approved. This is just one example of how the amount and timing of flows could be adaptively managed to maximize benefits to fish and wildlife.

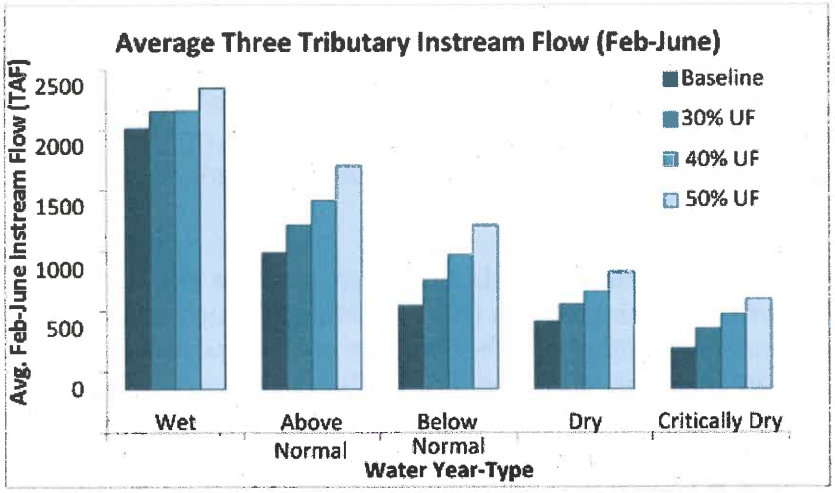
Approval can occur in two ways. The program of implementation requires the formation of a Stanislaus, Tuolumne, and Merced Working Group (STM Working Group) to assist with implementation, and monitoring and evaluation of effectiveness of the flow requirements. The program of implementation encourages state and federal fisheries agencies, water users, and others to participate in the STM Working Group with State Water Board staff. One or more members of the STM Working Group could recommend the February to May shift to the Executive Director, and the Executive Director could approve it on an annual basis if it met plan requirements. Independently, the State Water Board also has the authority to meet and approve adaptive implementation changes on an annual or long-term basis if such changes meet the requirements set out in the plan.

Non-flow measures, like floodplain restoration, gravel enhancement, fish-passage improvements, and suppression of predatory fish, also play a role in adaptive implementation. The Bay-Delta Plan recognizes that non-flow measures serve an important role in river restoration by supporting native fish and wildlife and promoting ecosystem improvements that complement flow for the reasonable protection of fish and wildlife. Under adaptive implementation, the implementation of non-flow measures that increase the biological benefits of the flow objectives could allow for a reduction in the required percent of unimpaired flow, as long as the percent of unimpaired flow remains within the 30 to 50 percent range. The Executive Director can approve a change to the percent of unimpaired flow on an annual basis with the consensus of the STM Working Group, or the State Water Board could meet and approve such a change.

Biological goals that assess improvements to fish populations resulting from flow and other actions will be an important tool to inform future Board decisions on potential adjustment to the unimpaired flow objective. Basically, adaptive implementation will 1) allow for the optimization of flows to reasonably protect fish and wildlife uses while allowing for consideration of other beneficial uses, such has water for human uses, provided that these other considerations do not reduce the intended benefits to fish and wildlife; 2) allow for nimble responses to changing information and conditions; and 3) minimize unintended impacts and potential water supply effects.

Benefits of the Flow Proposal

In most instances the new flow objectives will provide more unimpaired flow (also called instream flow) than existing baseline conditions. This will more closely align San Joaquin River watershed flows with the flow conditions to which native species are adapted. With a 40 percent of unimpaired flow requirement, average annual February through June instream flow for the tributaries would increase by 288 thousand acre-feet (TAF). The effects would be larger at 50 percent of unimpaired flow (485 TAF) and smaller at 30 percent of unimpaired flow (174 TAF); the biggest benefits would occur in dry years.



Flow influences nearly every feature of habitat that impacts fish and other wildlife, including water temperature, water chemistry, and the availability of physical habitat. These features, in turn, affect the risk of disease and predation, reproductive success, growth, migration, and feeding behavior of native fish. Adding flow objectives for the tributaries will help ensure that benefits for native fish extend further into the watershed and along migratory routes.

State Water Board analysis shows that, when implemented, the new flow objectives will significantly improve the quantity and quality of habitat for fish and wildlife. With 30, 40 and 50 percent of unimpaired flow in February through June, temperature targets that are protective of all life stages of native fish are reached more frequently than under baseline conditions. The largest benefits will occur in dry years, particularly in the Tuolumne and Merced Rivers. Salmon rearing temperature thresholds for the month of May will be met twice as frequently in critically dry years with 40 percent of unimpaired flow as they are currently.

There are many other benefits of a more natural flow regime during the spring months, including a reduction in nonnative fish and nonnative vegetation. Large flow pulses in the spring are expected to help protect migrating juvenile fish from predators, and higher instream flows will increase floodplain inundation. Floodplain inundation is important because it provides abundant food and a safer environment for growing fish. Average annual floodplain inundation would increase by 35 percent with 40 percent of unimpaired flow.

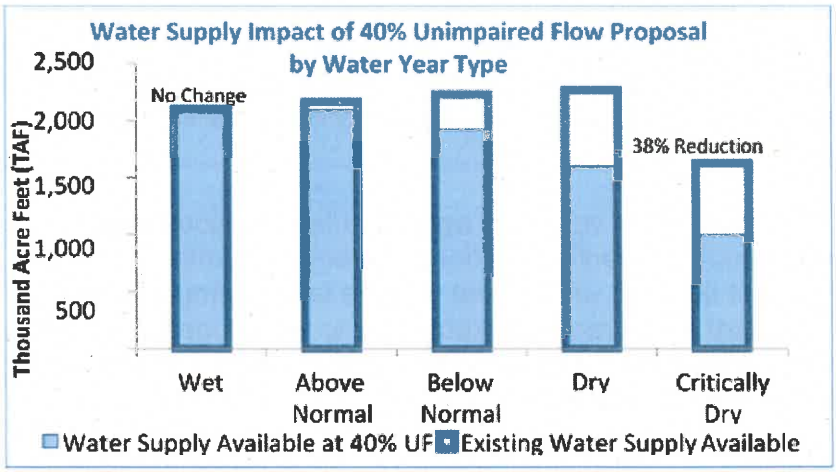
Potential Water Supply Impacts of the Flow Proposal

The new flow objectives require more water to remain instream to reasonably protect fish and wildlife to establish a better balance between human uses and the needs of fish and wildlife. This could reduce the surface water available for human uses, especially during drier years, and make water conservation and other tools like groundwater banking even more important than they already are. The reduced water supply would primarily affect agriculture, but would also affect drinking water supplies and hydropower generation.

State Water Board staff examined the impacts of a range of unimpaired flow objectives, 20 to 60 percent, on surface water supply because restoring instream flows would, on

average, reduce the amount of water available for human uses. The evaluation found that 40 percent of unimpaired flow fulfills the most Bay-Delta Plan goals while moderating adverse effects on surface water for human uses.

Implementing the 40 percent of unimpaired flow objective, within a range of 30 to 50 percent, is expected to reduce the water available for human use between 7 and 23 percent, on average.
The figure below shows the effect of the 40 percent unimpaired flow requirement on water supply during different water year types. During wet years, there will be almost no impact because there is abundant flow to share, but significant impacts on diversions could occur in the driest years.



The potential impacts on the agricultural economy increase as the unimpaired flow percentage increases. A 40 percent of unimpaired flow requirement is projected to result in an average annual decrease in economic output of $69 million. This represents a 2.5 percent reduction from baseline annual average agricultural economic sector output of $2.6 billion. The impact would be lower at 30 percent ($35 million) and higher at 50 percent ($123 million). However, these impacts do not consider the mitigation actions water users would likely use to lessen economic effects, such as water efficiency, conservation, changes in crop type, or groundwater recharge projects.

Flow Proposal and Groundwater

As surface water availability declines, local water users have historically turned to groundwater. This could cause or exacerbate groundwater overdraft, at least in the short-term, until projects and programs are implemented under the Sustainable Groundwater Management Act. In the San Joaquin River Watershed, surface water and groundwater have been over extracted for a long time. This overreliance has degraded native fish populations, increased river temperatures, and caused depleted groundwater basins. State Water Board analysis shows that when the new flow objective is implemented, groundwater substitution by local water users could result in a further increase in groundwater pumping.

In the future, as local agencies implement Sustainable Groundwater Management Act measures, there may be less groundwater available for agricultural irrigation. The difference between what is available and what is needed will depend on actions local

agencies and water users take, such as improved irrigation efficiency and enhanced groundwater recharge, to reduce water supply impacts. While the new objectives do not require these types of actions, the proposed Final SED identifies actions that stakeholders can take to address and lessen effects on groundwater supplies in the environmental documentation in support of the Bay-Delta update. The State Water Board recognizes that adjusting to reductions in water supplies will be challenging for water users as these actions progress. Sustainably managing surface water and groundwater resources together is the only way to ensure the protection of both resources.

Opportunities to Reduce Water Supply Impacts

The State Water Board recognizes that factors other than flow can degrade conditions for native fish. Factors impacting fish throughout the watershed include, non-native species, predation, high water temperatures, barriers to fish passage, and habitat loss. As a result, the Bay-Delta Plan amendments recommend non-flow measures to complement the new flow objectives. Implementing non-flow measures can potentially reduce the flows needed, within the 30 to 50 percent range.

The State Water Board also recognizes that voluntary agreements can accelerate implementation of the new water quality objectives. If done correctly, voluntary agreements can reasonably protect fish and wildlife and provide long-lasting solutions in the Bay-Delta Watershed. The Board encourages stakeholders to work together to reach voluntary agreements that incorporate a mix of flow and non-flow measures that meet or exceed the new objectives and protect fish and wildlife.

The State Water Board will consider voluntary agreements as part of Board proceedings to implement the Bay-Delta Plan. In evaluating any agreement, the Board will consider whether the agreement will help achieve the water quality objectives, protect the beneficial use, and be enforceable through Board action. The Board will also make any independent findings required by law to implement the Bay-Delta Plan. Depending upon the strength of the voluntary agreement and success in meeting specified goals, the State Water Board could reduce the unimpaired flow requirement as low as 30 percent; however, the Board is interested in receiving potential plan amendment language which would authorize implementation, upon affirmative concurrence from the California Department of Fish and Wildlife, of a coordinated control of flows and other, non-flow factors that would achieve benefits comparable to the unimpaired flow requirements.

Southern Delta Salinity Objectives

Salinity is a measure of how much salt is dissolved in water and is often expressed in units of deciSiemens per meter (dS/M). The current southern Delta salinity objectives are set at two different levels. In April through August, the objective is 0.7 dS/m. In September through March, the objective is 1.0 dS/m. These objectives apply at four fixed-point compliance locations in the southern Delta. The State Water Board is proposing a year-round salinity objective of 1.0 dS/m and compliance would be determined at one-fixed point compliance location and three channel segment compliance locations.

High concentrations of salt in irrigation water can reduce crop yields. However, analyses of southern Delta water quality and crop salinity requirements show that the existing April through August salinity objective is more stringent than what is needed to reasonably

protect agricultural crops. Revising the southern Delta salinity objectives will better reflect current conditions and updated scientific knowledge.

While the proposal will update southern Delta salinity objectives, the Bureau of Reclamation will be required to comply with the current salinity requirements at Vernalis (as a conditions of its water rights) to implement and meet the proposed salinity water quality objective in the interior southern Delta.

The new flow objectives complement the salinity objectives by increasing flow in the southern Delta. Increased flows from February through June have the incidental benefit of flushing salts early in the irrigation season, and providing lower salinity conditions during spring germination of crops, which is generally the most salt sensitive time.

Implementation of the Flow Objectives

The State Water Board's evaluation and adoption of the plan amendments, by themselves, do not impose requirements on any water users to comply with the plan amendments that are enforceable by the State Water Board, but the program of implementation commits the State Water Board to fully implement the LSJR flow objectives by 2022. Unless water users enter into voluntary agreements to implement an updated Bay-Delta Plan, the State Water Board will take actions to require implementation of the LSJR flow objectives through water right or water quality actions, such as conditioning of water rights, adoption of regulations, and other water quality actions. These actions will include imposing enforceable requirements based on the flows needed to achieve the objectives.

Next Steps

The State Water Board will begin consideration of whether to approve the proposed Final SED and the San Joaquin River and southern Delta salinity amendments to the Bay-Delta Plan at a public meeting commencing on August 21, 2018 meeting. The proposal and additional information regarding the adoption process can be accessed here.

Santa Clara Valley Water District

MEMORANDUM

FC 14 (01-02-07)

TO: Board of Directors **FROM:** Nina Hawk

SUBJECT: Draft Agreement in Principle for the State Water Project Contract Amendment for Water Management and California WaterFix **DATE:** July 13, 2018

On June 27, 2018, The Department of Water Resources and the State Water Project Contractors (Contractors) concluded public negotiations that resulted in the completion of the Draft Agreement in Principle for the State Water Project Contract Amendment for Water Management and California WaterFix (AIP) (Attachment 1). The AIP outlines the terms of agreement between DWR and the Contractors, including 1) a supplement and clarification of terms of the State Water Project (SWP) water supply contract that will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area, and 2) provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity.

Background -- On December 10, 2014, the Department of Water Resources (DWR) and the State Water Project Contractors (Contractors) initiated formal negotiations for a contract amendment. Negotiations were deferred while DWR transitioned to the California WaterFix and the Contractors refined their proposed objectives for the amendment.

Negotiations resumed on February 28, 2018 and were completed on June 27, 2018. The proposed AIP will be used to develop the project description for DWR's CEQA analysis of the amendment and will form the basis for contract amendment language. DWR is currently developing its timeline for this process, which is anticipated to be completed within one year.

District staff participated in the contract amendment negotiations, and process for development of the AIP, and intends to bring the AIP to the Board for review and potential approval within the next several months.

Nina Hawk
Chief Operating Officer
Water Utility Enterprise

Attachment 1: Draft Agreement in Principle for the State Water Project Water Supply Contract for Water Management and California WaterFix

DRAFT WORKING DOCUMENT FOR PUBLIC DISCUSSION
Draft 3 – June 27, 2018
Doc # 00115

Draft Agreement in Principle for the SWP Water Supply Contract Amendment for Water Management and California WaterFix

This straw proposal for a draft Agreement in Principle (AIP) is from the Consolidated Talking Points as of May 30, 2018 from the contract amendment negotiations. Many provisions are under discussion and the workgroup will update the Draft AIP after future public negotiations. [Format used in this document is preliminary and is subject to revision.]

DRAFT Proposed Project Objectives

The California Department of Water Resources and the PWAs have agreed to the following proposed project objectives for amending the SWP water supply contract:

1) Supplement and clarify terms of the SWP water supply contract that will provide greater water management regarding transfers and exchanges of SWP water within the SWP service area;

2) Provide a fair and equitable approach for cost allocation of California WaterFix facilities to maintain the SWP financial integrity.

I. PRINCIPLES TO ACHIEVE DRAFT PROPOSED OBJECTIVE FOR WATER MANAGEMENT TOOLS AND ACTIONS

1. Water Transfers.

1.1. **Terms of a Transfer Agreement:** The PWAs shall determine duration and compensation for all transfers; this includes allowing single, Transfer Packages and multi-year transfers to be as long as the remainder of the term of the contract.

1.2. **Transfer Package Definition**: A Transfer Package is comprised of two or more transfer agreements between the same PWAs. If a transfer package is presented to DWR for approval, DWR shall consider each proposed transfer within the package at the same time and shall apply the transfer criteria listed below in the review of each transfer. DWR shall not reclassify a Transfer Package or Transfer as an exchange.

1.3. All contract language in Article 56(d) and language related to the Turnback Pool shall be removed.

2. Water Exchanges.

2.1 Article 56(f) will be revised to include language permitting consideration of hydrology under a bona fide exchange and will include the following criteria for return ratios:

For SWP allocations >= 50%, return ratio is up to 2: 1
For SWP allocations > 25 and < 50%, return ratio is up to 3: 1
For SWP allocations >15% and <=25%, return ratio is up to 4: 1
For SWP allocations <=15%, return ratio is up to 5:1

2.2. The PWAs shall use the applicable return ratio using the SWP allocation at the time the exchange transaction is executed between the PWAs.

2.3. Notice to Contractors 17-11 Attachment A, Section A, Bona Fide Exchanges, Item 4 Cost compensation reads as follows: Maximum cost compensation for a bona fide exchange may not exceed the exchanging PWAs combined conservation facilities, transportation facilities, and CWF facilities' fixed charges (capital and minimum charges including capital surcharges). The allocation percentage in the denominator of the compensation calculation will be set by the SWP allocation which has incorporated the May 1 monthly Bulletin 120 runoff forecasts. If exchanges are requested prior to the allocation identified above, DWR will provide timely approval with the obligation of the PWAs to meet the requirement of the maximum compensation – if the compensation exceed s the maximum, the PWAs will re-visit the agreement and adjust the compensation. If a cost adjustment is made, the PWA must notify DWR.

3. Transfers and Exchanges, including Transfers and Exchanges using Carryover Water in San Luis Reservoir (SLR).

3.1. **Buyers and Sellers in Same Year.** PWAs may be both buyers and sellers in the same year and enter into multiple transfers and/or exchanges in the same year.

3.2. Basic Criteria Required for Proposed Transfers and Exchanges.

3.2.1 Transfers and exchanges must be transparent.

3.2.2 Transfers and exchanges must not harm non-participating PWAs.

3.2.3 Transfers and exchanges must not create significant adverse impacts in a PWA service area.

3.2.4 Transfers and exchanges shall comply with all applicable laws and regulations.

3.2.5 Transfers and exchanges shall be scheduled only if they do not impact normal SWP operations.

3.2.6 Transfers and exchanges shall not impact the financial integrity of the SWP.

3.2.7 A PWA may petition the Director for an exception in the following cases. In each case, the PWA must provide explanatory information to the Director.

- A transfer or exchange does not meet the basic criteria, but the PWA feels that there is compelling need to proceed with the transfer or exchange.
- A PWA that has received water in a transfer or exchange cannot deliver all of the water from the transaction in the same calendar year, and wishes to carry over the water in its name.

The Director shall have discretion to approve exceptions.

3.3. **Dispute Resolution Process, Prior to Executing an Agreement.** PWAs and DWR shall comply with the following process to resolve disputes if a PWA that is not participating in the transfer or exchange claims that the proposed transfer and/or exchange has a significant adverse impact.

3.3.1 Any claim to a significant adverse impact may only be made after the submittal of a term sheet to DWR and before DWR approves a transfer/exchange agreement.

3.3.2 In the event that any dispute can't be resolved among the PWAs, DWR will convene a group including DWR (the Chiefs of SWPAO, Legal, and Operations or their designees) and the PWA parties involved (PWA representatives to be chosen by each PWA party). Any PWA claiming an adverse impact must submit written documentation to support this claim and identify a proposed solution. This documentation must be provided 2 weeks in

advance of a meeting of the group that includes SWPAO, Legal, Operations and the involved PWA representatives.

3.3.3 If this group can't resolve the dispute, the issue will be taken to the Director of DWR.

3.3.4 The Director's decision will be the final.

3.4. **Water Delivery Priorities:** Exchange and transfer water shall be scheduled in accordance with Article 12 (f) priorities retaining the associated priority level. The transfer water will not have the protection of Article 14(b) and the delivery cannot impact any other PWAs.

3.5 Although DWR will not be a party to any transfer or exchange agreement between the PWA's, DWR and the PWAs shall enter into an agreement to address DWR's role in effectuating the transfer or exchange. Such agreement shall include certain standardized provisions designed to protect SWP operations, finances and liability, along with other provisions tailored to the particular transaction or as otherwise agreed among DWR and the PWAs.

3.6 **Timely Processing**. DWR will timely process requests to be incorporated into the schedule to deliver water that given year.

3.7 **Shortages:** In regards to shortages, DWR retains authority as set forth in Article 18(a).

3.8 **Article 21.**

3.8.1 Tulare Lake Basin Water Storage District, Empire Westside Irrigation District, Oak Flat Water District, and Kings County may transfer a portion of their Article 21 water to another PWA.

3.8.2 The Director, in his or her discretion, may approve the transfer of a portion of other PWA's allocation of Article 21 water to another PWA where there is a special need for the transfer. The Department will prepare criteria to be applied for the review of a PWA request to transfer Article 21 water. This will not impact the Department's process for allocating Article 21 water.

4. PWA Due Diligence.

4.1 Each PWA participating in an exchange or transfer shall confirm the following in a resolution or other appropriate document approving the transfer or

exchange, including the use of stored water/carryover water, if applicable, provided to DWR as follows:

4.1.1 That the PWA has complied with all applicable laws for this transfer/exchange and shall specify the notices that were provided to the public agencies and the public regarding the proposed transfer or exchange.

4.1.2. That the relevant terms of the transfer/exchange have been provided to all State Water Project PWAs and the SWC Water Transfer Committee;

4.1.3. That the PWA is informed and believes that this transfer/exchange will not harm other SWP PWAs, or impact SWP operations.

4.1.4. That the PWA is informed and believes that the transfer/exchange will not affect its ability to make all payments, including payments for its share of the financing costs of DWR's Central Valley Project Revenue Bonds, when due, under its water supply contract.

4.1.5. That the PWA has considered the potential impacts of the transfer/exchange within the PWA's service area.

4.2. Add language to the contract that requires PWAs parties to an exchange or transfer to publicly post and provide information to non-party PWAs. The PWAs and DWR agree that DWR will send a Notice to Contractors to outline the following process related to transparency for transfers and exchanges:

At the time the PWA parties submit the Contract Information Form to DWR, they will provide the Contract Information Form to the non-party PWAs. During the time period beginning with the PWA parties submitting the Contract Information Form to DWR and the time before there is a final agreement with DWR for storage or conveyance, the PWA parties will publicly post information regarding the transfer or exchange. If applicable, the PWA parties will request the State Water Contractor Board to support the water transfer. If the State Water Contractor board votes to support the transfer or exchange, the General Manager will send a letter of support to DWR and to the non-party PWAs. Once a storage or conveyance agreement is completed it will be provided to the non-party PWAs.

4.3. If requested by the DWR Director with respect to any confirmation of Basic Criteria for Transfers, Exchanges and Carryover Water, the PWA shall

cooperate with DWR in providing DWR with information supporting the basis for the confirmation or basic criteria.

5. Stored Water/Carryover Water.

5.1. **Store and Transfer SWP Water in the Same Year.** Modify Article 56(c)(4) and any other applicable sections to allow PWAs to store and transfer Table A water in the same year and modify Article 56(c) and any other applicable sections to allow a PWA to transfer Table A water to another PWA's service area. DWR will continue to coordinate through the PWAs under the existing SWP contracts.

5.2 **Carryover Water Program**: Carryover Water Program shall require transfers and/or exchanges of carryover water in years of need, as confirmed by the receiving PWA, to meet the following criteria:

5.2.1 Carryover water available for transfer or exchange in this amendment is defined only as stored water described in Article 56(c)(1) and 56(c)(2) and not 12(e).

5.2.2 Carryover water may only be exchanged or used in single-year transfers.

5.2.3 The PWA purchasing the carryover water must take delivery, in its service areas, unless an exemption is granted under 5.2.8.

5.2.4 A PWA may transfer or exchange up to 50% of its carryover water.

5.2.5 A PWA may transfer/exchange greater than 50% of its carryover water, if the PWA demonstrate that the transfer or exchange of carryover water will not prevent it from meeting critical water needs in the current year or the following year and obtain approval by DWR Director.

5.2.6 All transfer and exchange of carryover water are subject to section 4.2.

5.2.7 The PWA receiving the water must confirm that the PWA has a need for that water for use within its service area during the current year unless an exception is granted under 5.2.8.

5.2.8 A PWA may request an exception for the following, but not limited to, from the DWR Director:

5.2.8.1 For any exceptions to the criteria listed above;

5.2.8.2 Requests for the transfer and exchange of stored (or carryover) water prior to this water being displaced; and

5.2.8.3 Using San Luis Reservoir as the transfer/exchange point.

II. PRINCIPLES TO ACHIEVE OBJECTIVE FOR CWF COST ALLOCATION

1. These costs would be billed to and collected from SWP PWAs participating in the SWP portion of CWF (Participating PWAs), except those SWP PWAs situated north of the Delta (Non-Participating PWAs), through their annual Statement of Charges (SOC).

2. **CWF Facilities Definition:** CWF Facilities shall mean those facilities that are constructed to convey water from the north Delta to the south Delta through facilities as described in the California Water Fix Final EIR/EIS SCH #2008032062. In general, CWF Facilities will divert water from the Sacramento River through three intakes on the east bank of the Sacramento River, through pipelines and tunnels to the south Delta, to new forebay located northwest of the existing Clifton Court Forebay, and finally to connections with the California Aqueduct north of the Jones and Banks pumping plants.

3. **CWF Facilities Charge Components:** The purpose of the CWF Facilities is water conservation and/or transportation. Accordingly, all capital and minimum operations, maintenance, power and replacement (OMP&R) costs associated with the CWF Facilities are 100% reimbursable and shall be recovered by the DWR from Participating PWAs through their annual SOCs. These costs shall be allocated to and billed under two new charges as follows:

   (1) CWF Facilities Capital Charge Component

   (2) CWF Facilities Minimum OMP&R Component

4. **CWF Facilities Capital Charge Component Method of Computation**

4.1 This computation will recover actual annual debt service created by financing activities (Financing Method) for CWF Facilities.

4.2 Each Financing Method shall provide an annual repayment schedule, which includes all Financing Costs.

4.3 Financing Costs shall mean the following:
4.3.1 Principal of and interest on Revenue Bonds,

4.3.2 Debt service coverage required by the applicable bond resolution or indenture in relation to such principal and interest,

4.3.3 Deposits to reserves required by the bond resolution or indenture in relation to such Revenue Bonds, and

4.3.4 Premiums for insurance or other security obtained in relation to such Revenue Bonds.

4.4 Financing Method shall be divided into four categories:

4.4.1 CWF Facilities Capital Costs paid with the proceeds of Water System Facility Revenue Bonds,

4.4.2 CWF Facilities Capital Costs paid with amounts in the State Water Resources Development System Reinvestment Account,

4.4.3 CWF Facilities Capital Costs paid annually for assets that will have a short Economic Useful Life or the costs of which are not substantial, and

4.4.4 CWF Facilities Capital Costs prepaid by the Participating PWAs.

4.5 CWF Facilities Capital Charge Component should be allocated to the Participating PWAs in proportion to the CWF Facilities Allocation Factors for each calendar year.

5. CWF Facilities Minimum OMP&R Charge Component Method of Computation

5.1 Recovery will be estimated and/or actual annual OMP&R costs determined for the CWF Facilities each year.

5.2 CWF Facilities Minimum OMP&R Charge Component shall be allocated to the Participating PWAs in proportion to the CWF Facilities Allocation Factors for each calendar year.

6. CWF Facilities Energy Charges – The CWF energy costs are 100% reimbursable by the PWAs and the methodology will be determined by the interim SWRDS Finance Committee.

7. CWF Facilities Allocation Factors – The following table is a preliminary allocation of CWF Facilities participation percentages for the Non-Participating

PWAs and the Participating PWAs. Only Participating PWAs would be billed for CWF Facilities Charge Components through their annual SOC, using the CWF Facility Allocation Factors described in the table. Non-Participating PWAs would not be billed for repayment of costs for construction, operation and maintenance of facilities associated with CWF, except to the extent there is a permanent transfer of Table A from a Participating PWA to a Non-Participating PWA as set forth in principle 11.

Non-Participating PWA	**CWF Facilities Allocation Factors**
City of Yuba City	exempt
County of Butte	exempt
Plumas County FC&WCD	exempt
Napa County FC&WCD	exempt
Solano County Water Agency	exempt
Participating PWA	**CWF Facilities Allocation Factors**
Alameda County FC&WCD, Zone 7	1.9875%
Alameda County Water District	1.0355%
Santa Clara Valley Water District	2.4654%
Dudley Ridge Water District	1.0194%
Empire-West Side Irrigation District	0.0740%
Kern County Water Agency-Total	24.2278%
County of Kings	0.2294%
Oak Flat Water District	0.1405%
Tulare Lake Basin Water Storage District	2.1565%
San Luis Obispo County FC&WCD	0.6163%
Santa Barbara County FC&WCD	1.1214%
Antelope Valley-East Kern Water Agency	3.5709%
Santa Clarita Valley Water Agency	2.3470%
Coachella Valley Water District	3.4108%
Crestline-Lake Arrowhead Water Agency	0.1430%
Desert Water Agency	1.3744%
Littlerock Creek Irrigation District	0.0567%
Mojave Water Agency	2.2139%
Palmdale Water District	0.5251%
San Bernardino Valley Municipal Water District	2.5295%
San Gabriel Valley Municipal Water District	0.7100%
San Gorgonio Pass Water Agency	0.4265%
The Metropolitan Water District of Southern California	47.1253%
Ventura County Watershed Protection District	0.4931%
Total	100.000%

8. **Repayment Schedule Table** – The amount to be paid by the Participating PWAs for each year under the CWF Facilities Capital and Minimum OMP&R charge Components shall be set forth in a Repayment Schedule Table.

9. **Charge Redetermination** – The CWF Facilities Capital and Minimum OMP&R Charge Components shall be subject to Charge Redetermination.

10. **Annual Statement of Charges** – The CWF Facilities Capital and Minimum OMP&R Charge Components shall be included in a separate invoice that is included in the annual SOC and shall be subject to the time and method of payment for Capitol and Minimum OMP&R Components.

11. **Permanent Transfer of Contract Rights** – Any permanent transfer of Table A contract rights of a Participating PWA shall be accompanied by a pro-rata transfer of that PWAs rights and responsibilities with respect to CWF.

12. **CWF Facilities Use Of Facilities Charge** – If a Non-Participating PWA transfers allocated Table A to a Participating PWA, then no fee will be charged to the PWAs involved in the transaction. Other transactions may result in a fee sufficient to cover all (1) capital, (2) minimum operations, maintenance, power and replacement (OMP&R) costs, and (3) variable OMP&R costs, associated with this usage.

13. **Water Delivery Principles** – Participating PWAs moving water in excess of their CWF Facilities Allocation Factor shall schedule deliveries in a manner that does not harm other participating PWAs and shall be subject to the delivery priorities set forth in Article 12(f) of the Contract.

14. **Power Cost Incurred During Construction**: Per the DWR capitalization policy, any power costs (for example, power supply, grid connections, transmission) incurred to construct the CWF facilities shall be capitalized during Construction Work in Progress, as used in DWR's financial statements, and costs are 100% reimbursable recovered through the CWF Facilities Capital Charge Component.

III. ENVIRONMENTAL REVIEW PROCESS

1. DWR and the PWAs agree that this AIP is intended to be used during the environmental review process for the California Environmental Quality Act (CEQA), to define the proposed project description for the purposes of CEQA, and to permit the next steps of the SWP water supply contract amendment process, including scoping and the preparation of the EIR. The AIP principles are not final contract language and do not represent a contractual commitment by either DWR or the PWAs to approve any proposed project or to sign contract

amendments. By concurring with the AIP, DWR and the PWAs express their intent to move forward with the CEQA process with DWR as lead agency and the PWAs as responsible agencies, and ultimately develop a proposed project consisting of contractual amendments consistent with the AIP principles and prepare the EIR for consideration by DWR and the PWAs.

2. At the end of the CEQA process and in compliance with CEQA, DWR and the PWAs will each individually evaluate the EIR and contract amendments, exercise their independent judgment, and determine whether or not to certify the EIR, approve the proposed project and sign the contract amendments or to approve an alternative project. Consequently, even though DWR and the PWAs have agreed to the AIP for the purposes described in the preceding paragraphs, DWR and each PWA retain their full discretion under CEQA to consider and adopt mitigation measures and alternatives, including the alternative of not going forward with the proposed project.