



via email: [erin.foresman@waterboards.ca.gov](mailto:erin.foresman@waterboards.ca.gov)

April 14, 2020

Erin Foresman  
State Water Resources Control Board  
1001 I Street  
Sacramento, CA 95814

**Subject: Comment Letter—Bay-Delta Plan Comprehensive Operations Plan**

Dear Ms. Foresman:

We hope this letter finds you safe and healthy in this time of public health emergency. We have reviewed the Comprehensive Operations Plan (COP) and Monitoring Special Study (MSS) submitted to the State Water Board by the California Department of Water Resources and the United States Bureau of Reclamation and offer our comments on it.

As we understand implementation of the 2018 Bay-Delta Plan amendments, the COP and MSS submittals appear intended by DWR and the Bureau to comply with Chapter IV, Program of Implementation, Section B.1.iii and iv, addressing south Delta Agricultural Salinity Objectives, including the Comprehensive Operations Plan and Special Studies, Modeling and Monitoring and Reporting.

### **General Comments**

We find generally that the COP and MSS submittal fails to meet the requirements set forth in adopted 2018 amendments to the Bay-Delta Plan. It fails completely to develop modeling studies and flow responses that would prevent and mitigate harmful algal blooms as part of this implementation step of the 2018 Plan. The COP appears largely to be a rehash of existing operational practices employed by DWR and the Bureau as relates to the South Delta. Neither DWR nor the Bureau acknowledge that existing operations is not enough to “fully address the impacts of SWP and CVP export operations on water levels and flow conditions that may affect salinity conditions in the southern Delta, including the availability of assimilative capacity for local sources of salinity.” It is because of CVP and SWP exports that salinity problems occur in the Delta.

Their continuance is entirely insufficient as a plan to “fully address” salinity problems in the interior South Delta river channels.

In addition, the COP/MSS submittal ignores the 2018 Bay-Delta Plan’s implementation requirements for a monitoring and reporting plan and modeling studies needed to formulate the Comprehensive Operations Plan. DWR and the Bureau have clearly not taken formulation of the COP/MSS seriously, preferring to recycle existing operations and old salinity studies to create the appearance of complying with this implementation step.

It is our recommendation that the Board issue a letter that instructs the state and federal project operators to prepare a Comprehensive Operations Plan and Monitoring Special Studies (COP/MSS) report that addresses the spirit, not just the letter, of the 2018 Bay-Delta Plan’s Program of Implementation.

### **Comprehensive Operations Plan Comments**

The Comprehensive Operations Plan section requires:

*iii. Comprehensive Operations Plan: The State Water Board will continue to require DWR and USBR to address the impacts of their operations on interior southern Delta salinity levels. Specifically, the State Water Board will require the development and implementation of a Comprehensive Operations Plan (COP). The COP must:*

- describe the actions that will fully address the impacts of SWP and CVP export operations on water levels and flow conditions that may affect salinity conditions in the southern Delta, including the availability of assimilative capacity for local sources of salinity;*
- include detailed information regarding the configuration and operations of any facilities relied upon in the plan; and*
- identify specific performance goals (i.e., water levels, flows, or other similar measures) for these facilities.*

*Monitoring requirements needed to measure compliance with the specific performance goals in the COP must be included in the Monitoring and Reporting Plan, discussed below. DWR and USBR shall be required to consult with the South Delta Water Agency (SDWA), Contra Costa Water District (CCWD), State Water Board staff, other state and federal resource agencies, and local stakeholders to develop the COP, and will be required to hold periodic coordination meetings, no less than quarterly, throughout implementation of the plan.*

*DWR and USBR shall submit the COP to the Executive Director for approval within six months from the date of the OAL's approval of this amendment to the Bay-Delta Plan. Once approved, the COP shall be reviewed annually, and updated as needed, with a corresponding report submitted by October 3February 1 each year to the Executive Director for approval. The State Water Board will require compliance with this measure pursuant to its Porter-Cologne Water Quality Control Act authority to require technical and monitoring requirements, or as a requirement of a water right order.*

DWR and the Bureau rely on sworn testimony of SWP operator John Leahigh from the California WaterFix change petition hearing submitted to the Water Board on May 31, 2016. In that testimony, as summarized in the COP, DWR testified that D-1641 salinity objectives (throughout the Delta) “were exceeded 1.5 percent of the time from 1995 through 2015.” Of that, almost 90 percent of the violations occurred at the three interior southern Delta objective locations, and most of those were at the Tracy Road Bridge.

Mr. Leahigh’s testimony does not stand on its own. It underwent intensive cross-examination and there was additional testimony and cross-examination about DWR salinity exceedances in the Delta occurred during Part 1 direct, rebuttal, and sur-rebuttal phases of the change petition hearings on California WaterFix. Salinity conditions were considered in deep and expert detail during Part 2 of these hearings too. Suffice it to say, Mr. Leahigh’s testimony is hardly the final word on the nature and interpretation of the projects’ salinity violations in the Delta, including the South Delta. A particularly important point that emerged from this hearing process was how reliance on averaged salinity data obscured the importance of temporary spikes in salinity that can, if such water quality is applied to irrigate crops, can be highly detrimental to crop beneficial use. Crops are not irrigated with average water, but with water with a specific salinity level on any given day.

The COP (on page 2 of 10) claims that had the new 2018 interior South Delta salinity objectives been in effect, the violations would have occurred just half as often—“about 8 percent of the time”—as if this is relevant to establishing a comprehensive operations plan. It is strictly hypothetical. DWR and the Bureau acknowledge, that this “should be the basis of determining the availability and reasonableness (scope, cost, and effectiveness) of any actions taken to remedy the problem.” Yet the COP they submitted fails to provide meaningful actions that would “fully address” the salinity violations that recur in the interior South Delta channels.

DWR and the Bureau’s inaction in the COP is compounded by their argument that the agencies “have submitted numerous studies and reports in past years...showing that the CVP and SWP do not contribute to adverse salinity conditions in the south Delta and cannot alter their operations to produce a measurable change in south Delta salinity at the compliance stations.” (COP, p. 2 of 10.) The point of the COP/MSS is instead for DWR and the Bureau to think ahead about what actions they will take, not rely

complacently on what they have already done; their past actions are not sufficient laurels on which the two agencies can realistically rest.

Having reviewed several of these studies ourselves in the recent past, it is clear to us that DWR and the Bureau's contention that they "cannot alter their operations to produce a measurable change..." is exaggerated. An obvious policy change is called for, and is entirely within the capacity of the State Water Board, the Bureau of Reclamation and other local major water rights holders to alter: reduction of diversions from the San Joaquin River system at Millerton Lake as well as other large reservoirs along major tributaries of the San Joaquin River Basin. While some local salinity sources persist in the South Delta, the 2007 study by Barry Montoya (study number 16 in COP/MSS Attachment 1) showed that the sources, at least at that time, were often exceedingly small, relative to other sources of salinity, such as Old River tidal influences and the mainstem San Joaquin. It remains the case that the largest flow influences in the interior south Delta channels are the tides, the state and federal pumps, and the relatively fresh inflow from the San Joaquin mainstem.<sup>1</sup> In addition, recognition of the need to retire agricultural lands in the San Joaquin Valley, when acted upon, could be expected to reduce some of the naturally occurring salinity discharges that now occur because of agricultural drainage and return flow to the San Joaquin and its major tributaries.

We also urge State Water Board staff to review Tim Stroshane's study for the California Water Impact Network, contributed to the 2012 workshop record for development of the 2018 Bay-Delta Plan, that reviewed both DWR's South Delta Low Head Pumping Study and the Bureau's Dilution Flow Study—which are listed among the Attachment 1 studies in the COP/MSS submittal.<sup>2</sup> These studies were required by the State Water Board as conditions of its 2010 modification of the cease and desist order the Board placed on DWR and Bureau operations that were violating (not merely exceeding) salinity objectives in the South Delta. The C-WIN study found that

The western San Joaquin Valley is the logical place to focus the State Water Resources Control Board's source control enforcement efforts, and has been the logical place for decades, rather than in the South Delta. Salts from this area contribute significantly to the compliance problems in the interior South Delta, as DWR's Low Head Pump and the Bureau's dilution flow studies show. They also compromise water rights of Delta farmers.<sup>3</sup>

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<sup>1</sup> See Tim Stroshane, 2012. *Testimony on Recent Salinity and Selenium Science and Modeling for the Bay-Delta Estuary*, representing California Water Impact Network, pp. 11-16. [https://www.waterboards.ca.gov/waterrights/water\\_issues/programs/bay\\_delta/docs/cmmt081712/tim\\_stroshane.pdf](https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/cmmt081712/tim_stroshane.pdf)

<sup>2</sup> *Ibid.*, pp. 17-20.

<sup>3</sup> *Ibid.*, p. 19.

The interior South Delta salinity objectives are to protect South Delta agricultural beneficial uses, which in turn helps protect water rights of South Delta agricultural water users. The Board should require DWR and the Bureau to revise its Comprehensive Operations Plan to show how the two water project operators will comply with the interior south Delta salinity objectives, including through the use of flows from Millerton Lake and from New Melones Reservoir.

The same is true with the existing Temporary Barriers Project (TBP)—while its temporary rock barriers have helped to stabilize water levels in the interior South Delta channels at times, it continues not to be a long-term solution to the effects of massive levels of pumped exports from SWP's Banks and CVP's Jones pumping plants on salinity and water levels. The contents of the COP merely describe the engineered operations of the TBP. The outreach that occurs with SDWA in connection with the TBP represents coordination efforts that have literally occurred for years and represents no new proposal for improving the effects of operations. DWR and the Bureau should not be credited by the State Water Board with having put forward anything new here.

No performance goals are provided by DWR and the Bureau, even though the obvious performance goals are to demonstrate operational compliance with the 1.0 dS/cm EC salinity objective for the interior south Delta channel reaches (as distinct from the former stationary monitoring approach under D-1641). In particular, there is no proposal, other than to suggest that DWR and the Bureau will cooperate with the Water Board to develop a methodology. The point of the COP/MSS was to develop a methodology for the Board to review and approve.

Another performance goal that needs formulation is for harmful algal bloom (HAB) prevention and mitigation. HABs are mentioned in the COP/MSS. (Page 4 of 10.) How will the Bureau and DWR provide flows that will be needed to disrupt and flush HABs when they form in interior South Delta channels? Is the mere opening of culvert slide gates sufficient to generate sufficient disruptive flushing flows? How will we know if they are or are not?

There is no mention in the COP that either DWR or the Bureau have consulted as required by the 2018 Bay-Delta Plan "to consult with the South Delta Water Agency..., Contra Costa Water District ..., State Water Board staff, other state and federal resource agencies, and local stakeholders to develop the COP." As a local stakeholder organization in the Delta, neither water agency has reached out to Restore the Delta to participate in formulation of the COP.

#### **Subsection iv. Comments**

The Special Studies, Modeling and Monitoring and Reporting section (Chapter IV, subsection B.1.iv.) of the 2018 Bay Delta Plan states as follows:

- a. *Monitoring Special Study: Prior to development of the long-term Monitoring and Reporting Plan, described below, DWR and USBR shall*

*work with State Water Board staff and solicit stakeholder input to develop and implement a special study to characterize the spatial and temporal distribution and associated dynamics of water level, flow, and salinity conditions in the southern Delta waterways. The study shall identify the extent of low or null flow conditions and any associated concentration of local salt discharges. The State Water Board will request local agricultural water users and municipal dischargers to provide data regarding local diversions and return flows or discharges. DWR and USBR shall submit a plan for this special study to the Executive Director for approval within six months from the date of OAL's approval of this amendment to the Bay-Delta Plan. Once approved, the monitoring contained in this plan shall be conducted until superseded by the long-term Monitoring and Reporting Plan, described below, is approved.*

- b. Modeling: DWR and USBR shall provide modeling and other technical assistance necessary to prepare and update the COP, and otherwise assist in implementing the southern Delta agricultural salinity objective. DWR and USBR will be required to continue to provide this assistance as required by State Water Board Order WR 2010-0002, which modifies paragraph A.3 of Order WR 2006-0006.*
- c. Monitoring and Reporting Plan: DWR and USBR shall develop long-term monitoring protocols to measure compliance with the performance goals of the COP, and to assess attainment of the salinity objective in the interior southern Delta. These monitoring and reporting protocols shall be based on the information obtained in the Monitoring Special Study, and shall include specific alternative compliance monitoring locations in, or monitoring protocols for, the three river segments that comprise the interior southern delta salinity compliance locations. The Executive Director may approve changes to the gage stations at which compliance is determined, except monitoring station C-10, in Table 2, if information shows that other gage stations more accurately represent salinity conditions in the interior southern Delta.*

Three activities were required by the State Water Board of DWR and the Bureau to address special studies, monitoring, modeling, and reporting needs for implementing the Bay-Delta Plan's new interior South Delta salinity objectives. DWR and the Bureau have essentially submitted an impressionistic "plan" that involves scheduling "a meeting" with SDWA, CCWD, water board staff and "other interested parties" to be facilitated by DWR. This light lift by DWR will be accompanied by future continuation of existing weekly operational meetings. Again, the State Water Board should not credit DWR and the Bureau with "fully addressing" new implementation needs with already existing "meetings." DWR and the Bureau, after four decades of intimate involvement in the affairs of Delta water flows and water quality—not to mention a massive mobilization of local stakeholders to participate in the 2015-2018 California WaterFix change petition

water rights hearings—cannot rouse themselves to identify who the “local stakeholders” are and how they might reach out to them. Viewed from this angle, DWR’s proposal for future outreach concerning monitoring, special studies, and modeling is weak indeed.

We recommend that Water Board staff not accept the COP/MSS for such ineptitude by the state of California’s principal water resource department, and require further work. Environmental justice communities of the south Delta and Stockton—whose members include farm workers, workers in food processing industries, subsistence anglers, artists, writers, poets, social service providers, among others—must become part of the dialogue that DWR and the Bureau undertake in implementing the agricultural salinity objectives—not least because HAB formation is in part a function of salinity. Farm and industry jobs are at stake in how the South Delta experiences the changes in salinity and water quality that will issue from implementation of the new agricultural salinity objective.

Moreover, DWR and the Bureau have failed to provide in their COP/MSS submittal any “modeling and other technical assistance necessary to prepare and update the COP...” Given that no prospective modeling of implementation of the new agricultural salinity objective is included in this edition of the COP/MSS submittal, neither DWR nor the Bureau have complied with the requirement to (i.e., “shall provide”) model their compliance with the salinity objective. The COP/MSS was clearly something that the Water Board anticipated would prospectively indicate how its plan would be implemented by the parties responsible (DWR and the Bureau) for compliance with the new interior South Delta salinity objectives. DWR and the Bureau, however, have not roused themselves to make preparation of its compliance steps prospective, only recyclable.

In particular, one obvious modeling need—which has been omitted in the COP/MSS—is to determine flow and salinity thresholds (and perhaps other thresholds as well) needed for determining HAB formation conditions. Such modeling studies can help formulate performance goals for HAB prevention and mitigation in interior South Delta channels. Such studies are of vital concern to Delta environmental justice communities and drinking water providers, like Contra Costa Water District and the City of Stockton.

The Board also required DWR and the Bureau to “develop long-term monitoring protocols to measure compliance with performance goals of the COP, and to assess attainment of the salinity objective in the interior southern Delta.” The COP/MSS provides no performance goals. The COP/MSS provides no monitoring and reporting protocols. The monitoring and reporting plan we hope will be forthcoming from DWR and the Bureau, but as with the absence of any modeling effort, there is no mention of the reporting plan in the COP/MSS.

## **Conclusion**

At best, it appears to us that the deadline snuck up on DWR and the Bureau for submitting the COP/MSS document to the Water Board. Both agencies have apparently

been far more interested in ensuring that the Voluntary Agreements negotiations move forward, distracted by their respective long-term operations plans, biological opinions, and incidental take permits. And DWR is clearly preoccupied with mobilizing its Delta Conveyance Plan efforts with the Delta Conveyance Design and Construction Authority during the novel coronavirus pandemic. Yet compliance with this implementation is just as essential as any of these other actions with which DWR and the Bureau are now concerned.

We respectfully encourage the State Water Board to notify both DWR and the Bureau that their COP/MSS is woefully inadequate and to specify the various deficiencies it exhibits, and to issue a deadline by which the two parties must correct those deficiencies. We further respectfully encourage the Board to consider that an enforcement mechanism available to the Board—particularly if salinity violations occur during the low flow months of 2020—can and should include reopening of the order that modified the 2006 cease and desist order. Despite the reshuffling of power relationships between DWR and the Bureau with the December 2018 addendum to their 1986 Coordinated Operating Agreement, the Board retains its own authority to apply and enforce water rights permit conditions associated with its 2018 Bay Delta Plan.

We appreciate that the State Water Board included these vital implementation steps among the various amendments the Board made when it adopted the 2018 Bay-Delta Plan amendments. We would appreciate being included in routing of any and all responses publicly issued by the Water Board in relation to this implementation step. If you have questions about these comments, please contact us using the information below.

Sincerely,



Barbara Barrigan-Parrilla  
Executive Director  
209-479-2053



Tim Stroshane  
Policy Analyst  
510-847-7556

cc: Charlton Bonham, Director, California Department of Fish and Wildlife  
Karla Nemeth, Director, California Department of Water Resources  
Ernest Conant, Regional Director, U.S. Bureau of Reclamation  
Wade Crowfoot, Secretary, California Natural Resources Agency  
Mayor Michael Tubbs, City of Stockton  
Ana Matosantos, Office of the Governor  
John Herrick, General Manager, South Delta Water Agency  
Stephen J. Welch, General Manager, Contra Costa Water District  
Dante Nomellini, General Manager, Central Delta Water Agency  
Dillon Delvo, Executive Director, Little Manila Rising



Elaine Barut, Program Director, Little Manila Rising  
Sammie Nunez, Executive Director, Fathers and Family San Joaquin  
Nicholas Hatten, Executive Director, LGBT+Social Justice  
Tama Brisbane, Executive Director, With Our Words  
E. Joaquin Esquivel, Chair, State Water Resources Control Board  
Dorene D'Adamo, Vice-Chair, State Water Resources Control Board  
Tam Doduc, Member, State Water Resources Control Board  
Laurel Firestone, Member, State Water Resources Control Board  
Sean Maguire, Member, State Water Resources Control Board  
Kathryn Mallon, Executive Director, Delta Conveyance Design and Construction  
Authority  
Susan Tatayon, Chair, Delta Stewardship Council  
Randy Fiorini, Vice-Chair, Delta Stewardship Council  
Jessica Pearson, Executive Director, Delta Stewardship Council  
Erik Vink, Executive Director, Delta Protection Commission  
Regina Chichizola, Save California Salmon  
Tom Stokely, Save California Salmon  
Nina Robertson, Earthjustice  
Michelle Ghafar, Earthjustice  
Adam Keats, Adam Keats Law  
S. Dean Ruiz South Delta Water Agency  
Kelley Taber, Somach, Simmons & Dunn  
Thomas Keeling, Freeman Firm  
Osha Meserve, Soluri Meserve  
Roger Moore, Law Office of Roger B. Moore  
Jonas Minton, Planning & Conservation League  
Kathryn Phillips, Program Director, Sierra Club California  
Brandon Dawson, Sierra Club California  
Bob Wright, Sierra Club California  
Molly Culton, Sierra Club California  
Doug Obegi, Natural Resources Defense Council  
Kate Poole, Natural Resources Defense Council  
Bill Jennings, California Sportfishing Protection Alliance  
Chris Shutes, California Sportfishing Protection Alliance  
Carolee Krieger, California Water Impact Network  
Michael B. Jackson, California Water Impact Network  
Barbara Vlamis, AquAlliance  
Deirdre Des Jardins, Delta Defender/California Water Research  
Anna Swenson, North Delta CARES  
Patricia Schifferle, Pacific Advocates  
Jon Rosenfield, San Francisco Baykeeper  
Gary Bobker, The Bay Institute  
Mike Conroy, Executive Director, PCFFA/IFR  
John McManus, Golden State Salmon Association