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March 16, 2017

via email: commentletters@waterboards.ca.gov

Jeanine Townsend, Clerk to the Board
State Water Resources Control Board
1001 I Street, 24th Floor
Sacramento, CA 95814-0100

Subject: Comment Letter—2016 Bay-Delta Plan Amendment & RSED

Dear Ms. Townsend and Members of the State Water Resources Control Board:

Restore the Delta advocates for local Delta stakeholders to ensure that they have a direct impact on water management decisions affecting the water quality and well-being of their communities, and water sustainability policies for all Californians. We work through public education and outreach so that all Californians recognize the Sacramento-San Joaquin Delta as part of California's natural heritage, deserving of restoration. We fight for a Delta with waters that are fishable, swimmable, drinkable, and farmable, and able to support the health of the San Francisco Bay-Delta estuary, and the ocean beyond. Our coalition envisions the Sacramento-San Joaquin Delta as a place where a vibrant local economy, tourism, recreation, farming, wildlife, and fisheries thrive for future generations as a result of resident efforts to protect our waterway commons.

The Environmental Justice Coalition for Water (EJCW) works within a Community-to-Capital framework, connecting the most pressing needs of our disadvantaged community partners to our network of partners and agencies statewide. Since 1999, EJCW's work has been rooted in the communities most affected by environmental injustice. Issues and solutions are identified through regional chapters and statewide work groups. EJCW is positioned in the state capital, in order to connect communities with state agencies to bring about change multilaterally through advocacy, education, training, litigation, community organizing, and capacity-building, and by providing technical assistance. EJCW aims to effectively influence the intersections of water

justice and environmental justice, community health, and human rights issues from community to global levels.

This letter conveys to the State Water Resources Control Board (SWRCB) our comments on the above referenced 2016 Bay-Delta Plan Amendment and Recirculated Substitute Environmental Document (SED). Our comments are summarized below.

Our comments incorporate by reference recent comment letters filed in the public record regarding the 2016 Bay-Delta Plan Amendment and RSED by South Delta Water Agency, California Sportfishing Protection Alliance, The Bay Institute, California Water Impact Network, and AquaAlliance.

The Bay-Delta Plan Amendment and RSED Present Mixed Messages

Restore the Delta finds that the draft recirculated substitute environmental document (Draft RSED) and its accompanying draft water quality control plan amendments to San Joaquin River flow and south Delta salinity objectives (Appendix K of the Draft RSED) present a bundle of mixed messages.

First and foremost, we find it difficult to read the Draft RSED and Appendix K without relating it in some fashion to the California WaterFix's water right change petition (Petition) request by the California Department of Water Resources and the United States Bureau of Reclamation to the State Water Board seeking north Delta points of diversion for State Water Project and Central Valley Project water rights. If granted these new diversions would result in fundamental changes to in-Delta hydrodynamics, water quality, Delta inflow, Delta outflow, and exports by the Petitioners. But despite the dramatic artificial changes to the Bay-Delta Estuary that would be caused by a decision to grant the Petition, the Draft RSED and Appendix K treat the WaterFix as merely one of many "cumulative" projects relegated to its sole mention and micro-second scale analysis in Appendix K and the Draft RSED.

Such treatment is an insult to the California public in general, and the Delta's public in particular. From the standpoint of CEQA law, this insult is a failure to fully disclose the impacts of the proposed action in this instance because it all but ignores the largest water facility planned for the Delta, along with the facility's ability to remove substantial volumes of water from the Delta. The Draft RSED and Appendix K fail to explain the relationship between these two actions and, in so failing, render the impact analyses valueless as decision making tools. They fail to inform the public about the relationship of the Board's proposed changes to San Joaquin River flow and south Delta salinity objectives in light of Tunnels operations that would occur under California WaterFix.

A second mixed message stems from the Board's bifurcation of the two amendments in the Draft RSED and Appendix K from the rest of Bay-Delta Estuary water quality control planning. We are aware this decision was made many years ago, but it is proving now to be a fateful one in which the Board piecemeals its own water quality control planning

process for reasons that are at best hazy and unexplained and at worst fatuous. This is the first time in the Water Board's history that it has treated planning for Delta water quality in segmented fashion; the 1978, 1995, and 2006 plans each treated the Delta as a comprehensive whole for planning purposes. The logic of separating Delta flows from various sources at this time escapes us as the public is left with a truly incomplete picture of outcomes and potential impacts on water quality.

A third mixed message is that the Draft RSED leaves highly ambiguous just which beneficial uses the State Water Board is planning for. We ultimately think, however, that this Draft RSED and Appendix K are about benefiting exporters at the expense of senior water right holders upstream and downstream in the San Joaquin River watershed, with both increased flows and improved water quality. We are deeply suspicious that this outcome is perhaps cynically intended under the guise of improving flows for Fall Run Chinook Salmon and Central Valley Steelhead. At key times of year, the San Joaquin River downstream of Vernalis is almost entirely exported from the Delta. There is no assurance whatsoever that the ecological benefits of proffering and enforcing inflow criteria at Vernalis would provide any contribution to Delta outflow and that indicator's known ecological benefit. What is to stop all or much of fresher and larger San Joaquin flows from just being exported at Banks and Jones pumping plants? Put another way, there are no comparable instream flow criteria for the San Joaquin, Old, and Middle rivers that ensure that such flows will reach Antioch and Chipps Island in the western Delta. While Appendix K indicates that outflow decisions will fall later in the bifurcated process, a later proposal and hearings are not a substitute presently for ensuring that needed freshwater flows put into the system will not be exported but will rather provide much needed outflow for the estuary.

Adding to our suspicion is the Board's now long-standing proposal to relax south Delta salinity objectives by about 42 percent (from 700 to 1000 dS/cm). The RSED fails to justify relaxation of these objectives as either appropriate or necessary. It merely recounts a partial chronology of events describing the challenge of managing south Delta salinity before briefly outlining the proposed relaxation and the Board's proposal to regulate south Delta river *segments* as average values rather than continue with enforcement at compliance point locations applicable uniformly throughout river reaches. This relaxation is tantamount to permitting degradation and has not been justified as required, either as a reasonable action, or as a matter of benefits of the action exceeding costs.

The fourth mixed message we find relates to the Water Board's approach to this process. Now that the Board has bifurcated the water quality control plan, what process will the Board use to put the pieces back together in a coherent comprehensive whole? When will that occur? Will this recombination be part of Phase 2, and, if so, at what point would interrelationships between Phases 1 and 2 not already evaluated under the California Environmental Quality Act be reviewed? Or will they be reviewed at all?

The State Water Board Fails to Incorporate and Apply California's Statewide Water Policy Framework in Developing the Revised and Recirculated Phase 1 Flow and Salinity Objectives

In general, we observe a persistent unwillingness of state water agencies to acknowledge and apply the broad policy principles that the State Legislature has adopted, and sitting governors have signed into law, that make up statewide water policy. The principles informing these policies are intended to guide actions of state water agencies. Yet the agencies persist, if they acknowledge these policies at all, in applying them narrowly. Or, if they do not acknowledge them in their policy and planning documents, they interpret statutory language using narrow economic or engineering criteria. By doing so, these agencies often wind up employing methodologies or proposing and advocating actions that on their face conflict with these clear and protective statewide water policies.

These statewide water policies, taken as a unified whole and guide to state agency action, provide agencies with authority to establish, implement, construct, and operate a range of solutions to California's water problems. In many cases, by applying the policies California has, at least some of these problems may yet be solved.

The Bay-Delta Estuary is an over-appropriated common pool resource plagued by California's abject failure to protect all beneficial uses of water—human and non-human alike—according to the needs of its most sensitive beneficial uses.¹ This failure violates the state's public trust obligations, and the present amendments in Appendix K of the RSED would continue this record of failure. The proposed amendments fail to plan for all beneficial uses through and in the Delta (and called for in the Delta Reform Act) by ignoring the overarching framework of state water policy. This framework includes:

- Achieving the coequal goals of Water Code Section 85054 of enhanced ecosystem health and water supply reliability.
- Water Code Section 85023, stating: "The longstanding constitutional principle of reasonable use and the public trust doctrine shall be the foundation of state water management policy and are particularly important and applicable to the Delta."

¹ State Water Resources Control Board, *Water Rights Within the Bay-Delta Watershed*, September 26, 2008, presented to Delta Vision Blue Ribbon Task Force, October 17, 2008. Accessible at http://deltavision.ca.gov/BlueRibbonTaskForce/Oct2008/Response_from_SWRCB.pdf; California Water Impact Network, California Sportfishing Protection Alliance, and AquAlliance, *Testimony on Water Availability Analysis for Trinity, Sacramento, and San Joaquin River Basins Tributary to the Bay-Delta Estuary*, submitted by Tim Stroshane, October 26, 2012, accessible at http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/docs/comments111312/tim_stroshane.pdf; and Theodore E. Grantham and Joshua H. Viers, "100 Years of California's water rights system: patterns, trends and uncertainty," *Environmental Research Letters*, 9(2014), accessible at https://watershed.ucdavis.edu/ciles/biblio/WaterRights_UCDavis_study.pdf.

- Water Code Section 85021 requiring reduced reliance on the Delta in meeting California’s future water supply needs (and whose strategy specifies “investing in improved regional supplies, conservation, and water use efficiency”).
- Water Code Section 12200 *et seq.*, (the Delta Protection Act of 1959) requiring that neither state nor federal water projects should divert water from the Delta to which Delta users are entitled.
- Achieving the fish, and specifically salmonid, abundance goals of California Fish and Game Code Sections 5937, 5946, and 6902(a), and the Central Valley Project Improvement Act of 1992, Section 3406(b)(1).
- The federal Clean Water Act requiring that the chemical, physical and biological integrity of the nation's waters (including those of the Bay-Delta Estuary) be protected, that the navigable waters of the United States (including those of the Estuary) not be degraded, and that the water quality standards for the Estuary be based on the “most sensitive” beneficial use among those occurring in a particular water body.
- The state Porter-Cologne Water Quality Control Act.
- State and federal Endangered Species Acts.

While the coequal goals are identified in Appendix K and the RDSED, no evidence is provided to show that proposed inflow standards or a relaxing of South Delta salinity standards will enhance ecosystem health. As water exports are not addressed in these documents, and water rights hearings will occur after Phase I is completed, issues regarding the reasonable use of water by water exporters are not addressed. Furthermore, Water Code Section 85021 requiring reduced reliance on the Delta in meeting California’s future water needs is not discussed in depth as a strategy for enhancing ecosystem health within the Delta. In addition, that the regulation of water quality standards for the Estuary is to be based on the “most sensitive” beneficial use, as required by the federal Clean Water Act, seems to have been ignored in the proposed resetting of the South Delta salinity standard.

Environmental Justice, Human Right to Water, Beneficial Uses of Water

Other statewide policies to be carried out by state water agencies have been intended by the Legislature to supplement statewide water policy, including the Human Right to Water and statewide environmental justice policies. These policies have been completely ignored in Appendix K.

Additionally, a water quality control plan must establish beneficial uses, water quality objectives, and a program of implementation to achieve those objectives. (Water Code § 13050(j).) The proposed amendment to the 2006 Bay-Delta Plan incorporates the

2006 Plan's beneficial uses, which were carried over from the 1978 Delta Plan, the 1991 Bay-Delta Plan, and the 1995 Bay-Delta Plan. (2006 Bay-Delta Plan, p. 8.) Further, the State Board is subject to Water Code section 13241, which provides in part that the Board must consider "past, present, and probable future beneficial uses of water" when establishing water quality objectives that ensure the reasonable protection of all beneficial uses. (see, *City of Tracy v. California State Water Resources Control Board* (Sacramento Superior Court Case No. 34-2009-80000392.)

The State Board is concurrently considering statewide adoption and establishment of three new beneficial uses: subsistence (SUB), tribal subsistence (T-SUB), and tribal cultural use (T-CUL) in Part 2 of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. Although these beneficial uses may be adopted statewide, they would still need to be recognized within regional or state Basin Plans, where the Regional Water Board or State Water Board may designate waters within the respective region as having one or more of the beneficial uses. (Draft Staff Report, Part 2 of The Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries Of California, SWRCB Division of Water Quality, January 3, 2017.)

In recognition of this on-going process, we urge the State Board to recognize and adopt the three proposed beneficial uses (subsistence [SUB], tribal subsistence [T-SUB], and tribal cultural use [T-CUL]) into the current amendment to the 2006 Bay-Delta Plan. However, even if the Board chooses not to formally adopt the new beneficial uses, these new beneficial uses fall within the Water Code's instruction that all "probable future beneficial uses of water" be considered in the establishment of water quality objectives to ensure the reasonable protection of those uses. So far, no evidence of a reasonable protection determination has been offered, especially in light of the probable future beneficial uses of subsistence, tribal subsistence, and tribal cultural use.

Further, the new beneficial uses specifically target environment justice communities that rely on fish populations for daily consumption, as well as long-standing cultural use. Existing State policies protect EJ communities through encouraging the identification of problems and solutions of affected communities—this update, so far, has missed an opportunity to identify and correct these disproportionate impacts.

Appendix K fails to identify, adhere to, or incorporate the Human Right to Water or California environmental justice policies. Water Code Section 106.5 states that every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes. The domestic use of water as the highest human beneficial use of water is linked to the Human Right to Water. Adhering to and including these statewide policies is also directly tied to the Board's recent climate change resolution as it relates to the domestic use of water. The Board's climate change responses and actions can help all California residents adapt as smoothly as possible to inevitable impacts of climate change, including continuous provision of safe, clean, affordable, and accessible water for human uses and public health. Addition of the state's Human Right to Water Policy in the findings should result in parallel planning

and policy opportunities where the State Water Board is to ensure that the human right to water applies. Such opportunities should include all water quality control plan updates (including that for the Bay-Delta Estuary), new and revised beneficial use designations, National Pollutant Discharge Elimination System programs, and any drinking water-related plans the Board works on.

The State of California defines “environmental justice” as: “the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies.” (Cal. Gov. Code Sec. 65040.12, subd. (e).) The State Attorney General’s office states that “fairness in this context means that the benefits of a healthy environment should be available to everyone, and the burdens of pollution should not be focused on sensitive populations or on communities that already experience its adverse effects.” The State Attorney General adds, “environmental justice requires an ongoing commitment to identifying existing and potential problems, and to finding and applying solutions, both in approving specific projects and planning for future development.” (California Government Code [C.G.C.] Sec. 11135(a).)

California’s anti-discrimination statute further states:

“No person in the State of California shall, on the basis of race, national origin, ethnic group identification, religion, age, sex, sexual orientation, color, genetic information, or disability, be unlawfully denied full and equal access to the benefits of, or be unlawfully subjected to discrimination under, any program or activity that is conducted, operated, or administered by the state or by any state agency, is funded directly by the state, or receives any financial assistance from the state.” (*Id.*)

The State Attorney General’s office states that, while this policy does not expressly include the phrase “environmental justice,” in certain circumstances it can require agencies to undertake the same consideration of fairness in the distribution of environmental benefits and burdens called for in the state’s definition of environmental justice. In addition, the State Attorney General’s office notes that agencies “should evaluate whether regulations governing ‘equal opportunity to participate’ and requiring ‘alternative communication services’ (e.g., translations) apply. (See Cal.Code Regs., tit.22, secs. 9801, 98211.)” This will be essential in communicating Board programs and their climate change practices to an increasingly diverse California populace.

These laws and policies should be central to the overarching policy framework by which the SWRCB conducts its water quality control planning processes and its assessment of plan impacts and mitigation measures.

However, discussion of the Delta environmental justice community and the Human Right to Water is missing from Appendix K and the RSED. There is no identification of the Delta environmental justice community, discussion of potential impacts on the environmental justice community in relation to the proposed weakening of South Delta salinity standards, and no plan for mitigation of potential environmental or economic impacts.

According to the American Community Survey, 2010–2014, over 19% of all residents in San Joaquin County are living at the poverty level or below compared to 15% of the United States population. According to this same survey, 37% of San Joaquin County residents identify as race other than white, and 18% of San Joaquin County residents speak English less than well.² Roughly about 20% of San Joaquin County’s population can be identified as part of the environmental justice community with pockets in or near the Delta, like zip code 95206, approaching environmental justice community percentages of nearly 50%. San Joaquin County’s population in this period was roughly 650,000 people. Thus, roughly estimated, 120,000 San Joaquin residents could be identified as being members of the environmental justice community who would be impacted by water quality changes in the Delta as a result of implementation of proposed San Joaquin flows standards and relaxing of the South Delta salinity standards found in Appendix K and the RSED.

Moreover, Appendix K and the RSED do not consider, examine, or address water quality impacts for environmental justice community members who: 1) come in contact with Delta waters, such as subsistence fishers; 2) consume well water in the Delta or from adjacent aquifers; 3) consume Stockton municipal water from the Delta supply project; 4) or lose farmworker income from decreased crop yields due to increases in South Delta water salinity as described in comments by South Delta Water Agency.

Table 20 from the Delta Protection Commission’s 2011 Economic Sustainability Plan shows that a 25% increase in salinity in the Delta will result in an 11% decrease in revenue per acre, and a 50% increase in salinity in the Delta will result in a 25% decrease in revenue per acre³. The proposed 42% relation of salinity standards for the South Delta will likely result in revenue decreases per acre that will fall within a range from 11% to 25%. Appendix K and the RSED do not examine the relationship between decreases in revenue per acre and job numbers for farmworkers, who are part of the Delta environmental justice community. No economic analysis has been completed as to what the financial impacts would be on the poorest segment of the population in the South Delta.

The State Water Board Fails to Justify Relaxation of the Interior South Delta Salinity Objectives

Attached, you will find a detailed chronology completed by Tim Stroshane to document key passages from 40 years of SWRCB rulings (and others, including two court decisions) concerning public discussion on South Delta salinity issues. This attachment confirms what Mr. John Herrick, General Manager of the South Delta Water Agency, told the Board at the December 16, 2017 public meeting in Stockton: that the SWRCB

² American Community Survey, 2010-2014, Tables DP-02, DP-03, DP-05.
http://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/bay_delta_plan/water_quality_control_planning/2016_sed/docs/sfb_ssjde_bay_delta/12162016_stroshane.pdf

³ October 10, 2011 Public Draft: Economic Sustainability Plan for the Delta. Page 131. Table 20

has not followed a process, or justified analytically why South Delta salinity objectives should be relaxed.

From our perspective, this lack of justification is troubling for a number of reasons. First, the Delta community at large is being told essentially to accept on blind faith that water quality will not be degraded, because a science-based justification for relaxing the standard has not been provided. But the provided drafts do not prove or justify that no significant degradation to South Delta water quality will occur. The lack of any scientific basis does not provide the type of transparency that constitutes good citizen-government interactions: trust with verification.

Second, the sizeable South Delta environmental justice community, which has not been identified in Appendix K or the RSED, would experience a disproportionate environmental and economic burden resulting from negative water quality impacts, as thousands of these residents fish for sustenance, work in farm-related employment, recreate in or near Delta waters, and/or drink water from groundwater wells fed by Delta waters or municipal water systems that draw water from the Delta.

Third, as a result of relaxation of South Delta salinity objectives, salinity, one of the primary growth factors for harmful algal blooms, will increase in the South Delta where such blooms became more prevalent during the recent drought.

Harmful Algal Blooms

Salinity, nutrient concentrations and ratios, light access and water clarity, temperature, and water stratification and residence time are all contributing growth factors in the production of toxic algal blooms. Health impacts from microcystis bacteria found in algal blooms ranges from stomach aches to pneumonia, while other toxic bacteria can lead to liver and kidney inflammation in humans, and even death in animals.

At a September 16, 2016 Delta Protection Commission meeting, Dr. Peggy Lehman, with the California Department of Fish and Wildlife, presented her more recent findings regarding harmful algal blooms in the Delta and answered audience questions regarding the recent proliferation of such blooms. During her presentation, Dr. Lehman presented research that microcystins exceeded safe levels for drinking water for children under the age of three starting in 2014 near Delta toxic algal bloom sites.⁴ When asked by the audience if surface water contaminated with microcystins could percolate into groundwater, contaminating those supplies, Dr. Lehman answered that such studies had not yet been completed. Consequently, it is not known if microcystins can contaminate groundwater wells adjacent to the Delta. It is known, however, that drinking water supplies contaminated with microcystins cannot be treated for safe consumption.

⁴ Microcystis in the Delta. Peggy Lehman, Ph.D. Report to the Delta Protection Commission, September 2016. http://www.delta.ca.gov/files/2016/10/091516_Item_8_DrLehman.pdf

Dr. Lehman also indicated that microcystins present in irrigation water can contaminate crops and that farmers in other western states have had to switch to alternative irrigation water. Switching irrigation water supplies would be impossible for South Delta farmers who pump water directly from the Delta to irrigate their crops.

Dr. Lehman also described how microcystis blooms adversely affect phytoplankton, zooplankton, fish biomass and community composition of fish population in the Delta.

Appendix K and the DSED do not thoroughly examine the conditions for the proliferation of toxic algal blooms when Delta inflows would be at the lower 30% range, or when temporary change petitions are used again during times of extreme drought to override San Joaquin River flow standards set in the revised Delta Water Quality Plan Update. When flows are at their lowest, nutrient ratios, water clarity, temperature, and residence time increase, thereby contributing to the production of algal blooms. This coupled with a weakened salinity standard in the South Delta could increase the frequency of blooms of microcystis and other harmful toxic bacteria.

As with its treatment of a weakened South Delta salinity standard, Board staff have failed to produce science-based documentation that during times of low inflows from the San Joaquin River and a weakened salinity standard, toxic algal blooms will not proliferate. In fact, if the Board wanted to ensure that enhanced ecosystem health and water supply reliability were to be met as required under Water Code Section 85054, the RSED and Appendix K would contain flow criteria and salinity reductions for water quality improvements so as to reduce the number of toxic algal blooms during dry periods.

As with a weakened salinity standard for the South Delta, the sizeable South Delta environmental justice community, which has not been identified in Appendix K or the RSED, will experience a disproportionate environmental burden resulting from water quality impacts that could lead to the proliferation of toxic algal blooms. Mycrostis can create a public health threat for the thousands of these residents who fish for sustenance, work in farm related employment, recreate in or near Delta waters, or drink water from groundwater wells adjacent to Delta waters.

Governor Brown and Voluntary Agreements

In a letter to SWRCB Chair Felicia Marcus⁵, Governor Brown urged the State Water Resources Control Board to fast track flow agreements between water users on the San Joaquin and Sacramento River watersheds as a way to bypass the public process which the Delta Water Quality Plan Update entails.

Presently, a voluntary agreement process is underway as described on pages 36 and 37 of Appendix K.

⁵Governor Brown's Letter to State Water Resources Control Board Chair, Felicia Marcus.
<http://www.restorethedelta.org/wp-content/uploads/2016/09/SWRCB-gov-letter.pdf>

While Restore the Delta has pushed for a comprehensive update to the Delta Water Quality Plan for the both the San Joaquin and Sacramento Rivers before moving forward with any further processes for permitting the Delta Tunnels, Governor Brown's request to the State Water Resources Control Board was disingenuous at best. The water needed to fill the tunnels will have to come from the watersheds of both rivers upstream of the Delta. Without additional water from these river systems, the tunnels do not pencil out economically, requiring multi-billion dollar Federal and State tax subsidies reported on over the last six months.

While representatives involved in the voluntary agreement process are charged with considering and negotiating inflows for the Delta without consideration for the Delta tunnels, such negotiations are problematic at best, if not truly impossible. First, Friant Water Authority is not at the table and upper San Joaquin River flows above the confluence with the Merced River have been omitted from the Water Quality Plan Update. Second, water exporters are not being asked by the Board to participate in any shared sacrifice to account for past harms from water exports to Delta ecosystems. Consequently, a limited group of tributary water users are burdened with making the Delta environmentally whole, thereby generating resistance on their part to ensure adequate inflow for the Delta. Third, Delta interests are not at the table because such secret settlement processes generally result in the most powerful groups dictating the negotiations – a losing position for smaller Delta water districts.

Moreover, the Governor's letter to Chair Marcus continues a long and problematic tradition of governors interfering with State Water Board deliberations and decisions. Pete Wilson rejected a draft water rights decision in 1993 after water contractors complained about its effects on them. A voluntary agreement to promote salmon friendly flows on the San Joaquin River for 12 years failed to protect salmon.

On the surface, Governor Brown's letter elucidated an understanding that Delta flow and water quality objectives should be considered as a unitary whole, unlike what the Board has proposed. On this narrow point, Restore the Delta actually agrees with the Governor. But our agreement ends there.

The Governor's motivations to accelerate voluntary agreements, now embraced in Appendix K, go beyond his stated wish to urgently "improve our aquatic ecosystems" and are truly a mechanism to benefit his treasured tunnels project.

Chair Marcus and Board Member Tam Doduc have stated their willingness to consider voluntary agreements for appropriate flow objectives in the Tunnels proceeding now under way—but only after all the evidence submitted by all parties to the proceeding is in and has been vetted.



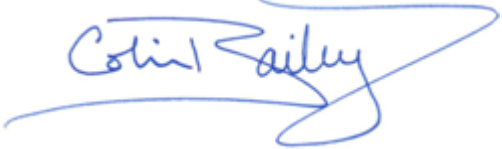

Clearly, Governor Brown hoped to short-circuit the water board's vetting process with this letter as have California's governors before him. The resulting "voluntary agreement" negotiations will become a water grab from all the rivers of the Central Valley for the water exporters. It is a shame that Governor Brown does not recognize the true environmental and economic value of a healthy San Francisco Bay-Delta

estuary, but only the value of water exported for profit. The Delta Water Quality Plan Update should only be conducted as a public process held up to scrutiny by concerned Californians and the press.

Conclusion

Appendix K and the Draft RSED fail to address adequately two key questions for this plan update: 1) What are the Delta's needs for good water quality for its many beneficial uses, and to meet various state water policy objectives for the Delta, including environmental justice policies and mandates? 2) How should the Delta's beneficial needs be met through establishment and enforcement of water quality objectives that protect the environment, and all Delta communities, including environmental justice communities?

Sincerely,

 Barbara Barrigan-Parrilla Executive Director Restore the Delta	 Tim Stroshane Policy Analyst Restore the Delta
 Colin Bailey Executive Director The Environmental Justice Coalition for Water	 Randy Reck Legal Fellow The Environmental Justice Coalition for Water

Attachments:

1. Chronology of SWRCB and Others' Statements About and Actions Concerning South Delta Salinity Objective

cc: Katheryn Landau
Timothy Nelson
Thomas Howard
Les Grober
Dianne Riddle
Colin Bailey, Environmental Justice Coalition for Water
Randy Reck, Environmental Justice Coalition for Water
Yana Garcia, Earthjustice

RTD, EJCW Comment Letter—2016 Bay-Delta Plan Amendment & RSED
March 16, 2017

Trent Orr, Earthjustice
Dante Nomellini, Central Delta Water Agency
John Herrick, South Delta Water Agency

Attachment 2

Chronology of SWRCB and Others' Statements About and Actions Concerning South Delta Salinity Objectives

Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
<p>1978 Sacramento-San Joaquin Delta and Suisun Marsh Water Quality Control Plan</p>	<p>Table VI-1: Vernalis on the San Joaquin River—500 mg/L TDS in all years, Maximum 30-day running average of Mean Daily TDS</p> <p>Tracy Road Bridge on Old River; Old River near Middle River; Brandt Bridge on San Joaquin River; Vernalis on San Joaquin River—April 1 through August 31 0.7 EC; September 1 through March 31 1.0 EC.</p> <p>Footnote 4 (p. VI-35): If contracts to ensure such facilities and water supplies are not executed by January 1, 1980, the Board will take appropriate enforcement actions to prevent encroachment on riparian rights in the southern Delta.</p>	<p>Page V-11: “An implementable solution for the southern Delta has eluded the best efforts of responsible public agencies for well over twenty years. Prior to 1944 water quality in the southern Delta was suitable for agricultural uses. Upstream depletions and water quality degradation of the San Joaquin River and its tributaries have greatly reduced the flows and quality available for protection of the southern Delta.</p> <p>“Riparian rights (taking into account upstream diversions by other riparians) would be generally sufficient to satisfy water quality needs of agricultural users in the southern Delta without regard to hydrologic year type. However, the permits of water development facilities in the San Joaquin River watershed, including those of the Bureau[fn2], which may be major contributors to southern Delta quality and quantity deterioration are not before the Board, nor has any jurisdiction been reserved in those permits to amend or supplement terms and conditions therein. Notwithstanding this, the permits do provide that such appropriations are subject to prior vested rights.</p> <p>“The direct effects of SWP and CVP diversions covered by permits currently before the Board do not result in major impact on water quality conditions in the southern Delta. It is questionable whether the Board could justify imposing terms and conditions in the permits before the Board to resolve all of the water quality problems in this area.</p> <p>“Thus, it would appear that the Board’s vested water right authority through which terms and conditions are imposed in water right permits will not yield an implementable solution based on a consideration only of project facilities on the Sacramento River system and the Delta.</p> <p>“Under this specific areal alternative, water quality standards for the southern Delta would be established through the Board’s water quality control authority. The level of protection provided agricultural uses in the southern Delta would be set to satisfy riparian rights. Implementation of these standards could be achieved through the Board’s broad enforcement authority. As previously indicated, all of the water right permits for the San Joaquin River Basin upstream of the Delta include a paramount provision that appropriations under these Board entitlements are subject to prior vested rights.”</p> <p>Page VI-22: “...[A] phased approach has been developed to resolve the long standing water quality problems in the southern Delta....The most practical solution for long-term protection of southern Delta agriculture is construction of physical facilities to provide adequate circulation and substitute supplies. If necessary physical facilities are constructed, the circulation flows needed may be only a moderate increase above those committed from New Melones Reservoir.[fn5] Negotiations concerning such facilities are currently underway between the project operators and the South Delta Water Agency.”</p>

Attachment 2

Chronology of SWRCB and Others' Statements About and Actions Concerning South Delta Salinity Objectives

Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
Water Rights Decision 1485, August 1978	None	<p>Page 11: “The current negotiations between the project operators and the South Delta Water Agency concerning the construction of physical facilities to provide adequate circulation in the southern Delta to meet these standards are discussed in Chapter I of the Delta Plan. These negotiations appear to be directed toward the most practical solution for the long-term protection of southern Delta agriculture and should be concluded as soon as practicable, at least by January 1980. If an agreement is not executed by January 1, 1980, the Board will examine in detail southern Delta water rights, determine the causes and sources of any encroachment, and take appropriate action to the extent of the Board’s authority.”</p> <p>Page 12: “Riparian rights would be generally sufficient to provide suitable water quality for agricultural uses in the southern Delta. Upstream depletion and water quality degradation of the San Joaquin River and its tributaries have greatly reduced the flows available for protection of agriculture in the southern Delta. However, the permits of water development facilities in the San Joaquin River watershed, including those of the Bureau [fn2], which contribute to southern Delta quality and quantity deterioration are not before the Board, nor has any jurisdiction been reserved therein. However, the permits do provide that the appropriations authorized thereby are subject to prior vested rights.</p> <p>“In the event facilities under the permits currently before the Board are found to have an effect on water quality conditions in the southern Delta, the Board would use the jurisdiction reserved under this decision to amend terms and conditions in these permits as appropriate.”</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
Racanelli Decision - 182 Cal.App. 3d 82 (1986)	None	<p>Page 115: “In short, the scope of our review is essentially twofold: 1) with respect to D-1485, the only question before us is whether the Board acted within its jurisdiction in imposing the water quality standards upon the projects; 2) with respect to the Plan, the only question is whether the Board acted contrary to procedures required by law.”</p> <p>Page 116: “The trial court concluded that the without project standards were invalid. While we reach a similar conclusion, our analysis focuses upon two erroneous assumptions made by the Board in establishing the qualitative standards. ...“First, the Board viewed “without project” as the measure of water flows necessary to protect the existing <i>water rights</i> in the Delta against impairment by the projects. [fn8] The approach taken is fundamentally defective....“In its <i>water quality</i> role of setting the level of water quality protection, the Board’s task is not to protect water rights, but to protect ‘beneficial uses.’” (emphasis in original)</p> <p>Page 118: “In performing its dual role, including development of water quality objectives, the Board is directed to consider not only the availability of unappropriated water (§ 174) but also <i>all</i> competing demands for water in determining what is a reasonable level of water quality protection (§ 13000). In addition, the Board must consider ‘past, present, and probable future beneficial uses of water’ (§ 13241, subd. (a))as well as ‘[w]ater quality conditions that could reasonable be achieved through the coordinated control of <i>all</i> factors which affect water quality in the area’ (§ 13241, subd. (c), emphasis added).”</p> <p>Page130: “We perceive no legal obstacle to the Board’s determination that particular methods of use have become unreasonable by their deleterious effects upon water quality. Obviously, some accommodation must be reached concerning the major public interests at stake: the quality of valuable water resources and transport of adequate supplies for needs southward. The decision is essentially a policy judgment requiring a balancing of the competing public interests, one the Board is uniquely qualified to make in view of its special knowledge and expertise and its combined statewide responsibility to allocate the rights to, and to control the quality of state water resources. (§ 174.) We conclude, finally, that the Board’s power to prevent unreasonable methods of use should be broadly interpreted to enable the Board to strike the proper balance between the interests in water quality and project activities in order to objectively determine whether a reasonable method of use is manifested.”</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
<p>1991 Water Quality Control Plan</p>	<p>Table 1-1: Tracy Road Bridge on Old River; Old River near Middle River; Brandt Bridge on San Joaquin River; Vernalis on San Joaquin River— April 1 through August 31 0.7 EC; September 1 through March 31 1.0 EC.</p> <p>Footnote 3: Staged implementation— Interim stage 1 - 500 mg/L mean monthly TDS all year at Vernalis; Interim Stage 2 (by 1994) of above Vernalis and Brandt Bridge; Final stage - extending to all four south Delta stations by 1996; OR a three-party contract implemented among DWR, Bureau and South Delta Water Agency settling water quality issues. [See also p. 7-4.]</p>	<p>Page 5-10: Essentially, the Basin 5 Plan and D-1422 state that for the San Joaquin River at Vernalis, the mean average TDS concentration shall not exceed 500 mg/L over any consecutive 30-day period.”</p> <p><i>(500 mg/L TDS converts to about 806 dS/cm of EC. [TDS = 0.62 * EC])</i></p> <p>“This objective has not always been met, particularly in recent years of drought. South Delta Water Agency and USBR have agreed on a number of occasions to release the limited supply from New Melones in a pattern which causes the objective to be violated at certain times of year, in order to preserve the dilution capability for more critical periods.</p> <p>“The USBR, SDWA, and DWR entered into a Framework Agreement in October 1986 in an attempt to settle litigation brought by SDWA against the USBR and DWR. Since that time the parties have negotiated a proposed contract to settle the SDWA litigation. The proposed contract was agreed to by DWR’s Director, USBR’s Director of the Mid-Pacific Regional Office and SDWA’s Board of Directors in August 1990. Each party also has its own approval process that must take place before the contract is fully executed.”</p> <p>Page 5-12: “Beans and alfalfa, the two most widely grown salt-sensitive crops in the southern Delta, were chosen as target crops for the purpose of setting objectives. Meeting the objectives for these crops will protect the less salt-sensitive crops. In developing objectives for beans and alfalfa, the evidence and exhibits from the Phase I hearings, information from DWR-sponsored South Delta Agriculture Subworkgroup, and the southern Delta negotiations were taken in to consideration.</p> <p>“...[T]hree key issues were discussed that influence the level of salinity required for the protection of beans and alfalfa: crop response during the early stages of growth, the determination of leaching fractions, and the effectiveness of rainfall in reducing soil salinity during the irrigation season. The members of the sub workgroup have been unable to reach consensus. The State Board will base its analysis on the University of California’s “Guidelines for the Interpretation of Water Quality for Agriculture” and the Delta Plan (1978, Delta Plan, UC ex.D).”</p> <p>The subject of agriculture objectives for the southern Delta should consider ongoing negotiations between DWR, USBR, and SDWA. Care should be exercised in setting objectives so as not to undermine negotiations but to bring [them] to a timely and fruitful conclusion. Any agreement resulting from the negotiations will be reviewed by the State Board before the objectives are revised to reflect those contained in the agreement.”</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
1992 Draft Water Rights Decision 1630	Same as those in 1991 Bay-Delta WQCP above. No footnote 3.	None found.
1995 Bay-Delta Water Quality Control Plan	<p>Table 2: Tracy Road Bridge on Old River; Old River near Middle River; Brandt Bridge on San Joaquin River; Vernalis on San Joaquin River— April 1 through August 31 0.7 EC; September 1 through March 31 1.0 EC.</p> <p>OR—implementation of contract among DWR, USBR and SDWA.</p> <p>Footnote 5: <i>The EC objectives shall be implemented at this location by December 31, 1997.</i></p>	<p>None found in the WQCP.</p> <p>The WQCP Environmental Report at page VIII-24 reports modeling results indicating that “Figures VIII-27 through VIII-30 show salinity under the preferred alternative [The Bay Delta Accord] and the base case at southern Delta stations for which the preferred alternative establishes year-round salinity objectives. Salinity changes in the southern Delta due to Delta Cross Channel closure are small. In general, salinity decreases under the preferred alternative from base conditions, especially from April through August. However, the 0.7 mmhos/cm standard for April through August is often exceeded in the later months (July and August) because of the 70 TAF cap on flows released from New Melones Reservoir to the San Joaquin River for water quality purposes.</p> <p>“Since salinity is an inverse function of flow at Vernalis, the base case versus preferred alternative differences in salinity shown in Figure VIII-30 directly reflect differences in flow. For example, November, December, and January flows are 0 to 14 percent less under the preferred alternative, resulting in 0 to 7 percent greater salinity. In general, the preferred alternative generates higher flows and lower salinities in October and April through July. Over the 1987-1992 period, average monthly salinity at Vernalis is reduced under the preferred alternative from the base case by 10 percent in April, 14 percent in May, 16 percent in June, and 3 percent in July.”</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
<p>Water Right Order 95-06</p>	<p>Maintained D-1485 interior southern Delta salinity objectives in place, per Term 2 of the order.</p>	<p>Page 31: "...Term 8 [of D-1485] addresses salinity protections for southern Delta agriculture which were required in 1980. A number of the parties objected to the deletion of these terms [including Term 8]. Accordingly, these terms will not be deleted."</p> <p>Page 41: "SDWA commented that full compliance with the southern Delta agricultural standards through freshwater releases from upstream projects in addition to New Melones Reservoir should be evaluated before implementing the Vernalis objective. [citation] Such an evaluation is unnecessary for this order since other southern Delta salinity objectives are not now being implemented and the Vernalis objective is equivalent to the D-1422 standard [for New Melones Reservoir]. This order is limited to making the water right permits of the DWR and the USBR consistent with the 1995 Bay-Delta Plan. At this time, such an evaluation would be speculative since the alternative methods to implement these standards in the long term are not yet determined. The SWRCB is not required to speculate about the effects of its future action. [citation] The SWRCB will consider the reasonableness of implementing the other southern Delta salinity standards during the water rights phase. [citation]"</p> <p>"Objectives to protect the beneficial uses in the southern Delta previously have been implemented largely through releases of fresh water from New Melones Reservoir. The fresh water releases help compensate for diversions of fresh water that have left [Page 42] mainly salty return flows in the San Joaquin River. While fresh water releases from New Melones Reservoir should continue, they do not prevent salts from entering the river. Return flows and drainage from agricultural operations add salts to the San Joaquin River. Also, there has not been enough fresh water available every year to meet the water quality objectives. Therefore, future actions will be needed to reduce the amounts of salts in the San Joaquin River during periods when higher levels of salt would violate the objectives [citation] Such actions already have been initiated.</p> <p>"In the 1991 Bay-Delta Plan, the SWRCB directed the Central Valley RWQCB to reduce salt loads to the San Joaquin River by ten percent. The RWQCB responded by requiring drainage operation plans from the areas on the westside of the San Joaquin River with the worst drainage problems. The drainage operation plans focus on water conservation to reduce salt and trace metal loading to the river. [citation]"</p>
<p>Water Right Order 98-09</p>	<p>Maintained D-1485 interior southern Delta salinity objectives in place, per Term 2 of the order.</p>	<p>None found.</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
<p>2000 Water Rights Decision 1641</p>	<p>Table 2: Tracy Road Bridge on Old River; Old River near Middle River; Brandt Bridge on San Joaquin River; Vernalis on San Joaquin River— April 1 through August 31 0.7 EC; September 1 through March 31 1.0 EC. [fn5]</p>	<p>Footnote 5, p. 182: <i>“Footnote 5: “The 0.7 EC objective becomes effective on April 1, 2005. The DWR and the USBR shall meet 1.0 EC at these stations year round until April 1, 2005. The 0.7 EC objective is replaced by the 1.0 EC objective from April through August after April 1, 2005 if permanent barriers are constructed, or equivalent measures are implemented in the southern Delta, and an operations plan that reasonably protects south Delta agriculture is prepared by the DWR and the USBR and approved by the Executive Director of the SWRCB. The SWRCB will review the salinity objectives for the southern Delta in the next review of the Bay-Delta objectives following construction of the barriers.”</i></p> <p>Regarding causes, Page 86: “Water quality in the southern Delta downstream of Vernalis is influenced by San Joaquin River inflow; tidal action; diversions of water by the SWP, CVP, and local water users; agricultural return flows; and channel capacity. [citation] The salinity objectives for the interior southern Delta can [be] implemented by providing dilution flows, controlling in-Delta discharges of salts, or by using measures that affect circulation in the Delta.</p> <p>...</p> <p>Actions, pages 87-88: DWR has since 1991 installed and operated temporary barriers to assist SDWA diversions. “Permanent barriers are proposed as components of the preferred alternative for the [South Delta Improvements Program].” No agreement as of D-1641 had yet been signed. “The construction of permanent barriers alone is not expected to result in attainment of the water quality objectives. The objectives can be met consistently only by providing more dilution or by treatment....</p> <p>“The DWR and the USBR are partially responsible for salinity problems in the southern Delta because of hydrologic changes that are caused by export pumping. Therefore, this order amends the export permits of the DWR and of the USBR to require the projects to take actions that will achieve the benefits of the permanent barriers in the southern Delta to help meet the 1995 Bay-Delta Plan’s interior Delta salinity objectives by April 1, 2005. Until then, the DWR and the USBR will be required to meet a salinity requirement of 1.0 mmhos/cm. <i>If, after actions are taken to achieve the benefits of barriers, it is determined that it is not feasible to fully implement the objectives, the SWRCB will consider revising the interior Delta salinity objectives when it reviews the 1995 Bay-Delta Plan.</i> The USBR and the DWR will be responsible to take any actions required by CEQA, NEPA, and the federal and State ESA prior to constructing the barriers.”</p> <p>Page 89: <i>“This decision requires the USBR to meet the Vernalis objective using any measures available to it. This decision also requires the DWR and the USBR to meet a salinity requirement of 1.0 mmhos/cm at the interior southern Delta stations....”</i> (Emphases added.)</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
2006 Cease and Desist Order WR 2006-0006	See D-1641.	<p>Page 7: Section 2.3 - “DWR’s permits and USBR’s license and permits...are subject to conditions imposed by Water Right Decision 1641, revised March 15, 2000, in accordance with Order WR 2000-02 (hereinafter D-1641). USBR and DWR are each fully responsible for meeting certain water quality objectives, including the interior southern Delta salinity objectives, as described in Table 2 of D-1641. Only USBR is responsible for meeting the salinity objectives on the San Joaquin River at Vernalis.”</p> <p>Page 27: Conclusion 5 - “DWR and USBR estimate they can implement measures that will obviate the threat of non-compliance with the 0.7 interior southern Delta EC objectives by early 2009. In the hearing leading to D-1641, DWR and USBR assured the State Water Board that they would have barriers in place to protect southern Delta agriculture by April 1, 2005. Considering that the objectives were first adopted in the water quality control plan in 1978, and there is evidence that salinity is a factor in limiting crop yields for southern Delta agriculture, the State Water Board will not extend the date for removing the threat of non—compliance beyond July 1, 2009.”</p> <p>Pages 28-32: The CDO ordered DWR and the Bureau to submit a compliance plan and schedule within 60 days of the order’s issuance; a permanent barriers operations plan for approval by the SWRCB no later than January 1, 2009; in the event of more potential exceedances of these objectives, DWR and USBR “shall immediately inform the State Water Board of the potential exceedance and shall describe the corrective actions they are initiating to avoid the exceedance” and that such corrective actions could include a wide variety of water sources, physical engineered solutions, and water purchases or exchanges; and a variety of reporting and monitoring requirements.</p>
2006 Robie Decision (136 Cal.App.4th 735)	See D-1641.	<p>Page 735: “There is nothing in the 1995 Bay-Delta Plan that allowed the Board to further delay implementation of the 0.7 EC objective at the two Old River sites, or that allowed the Board to delay implementation of that objective at the Brandt Bridge site, or that allowed the Board to replace that objective with a different objective under any circumstances. In taking these actions, the Board failed to adequately implement the 1995 Bay-Delta Plan and instead effectively amended the 1995 Bay-Delta Plan without complying with the procedural requirements for amending a water quality control plan.</p> <p>“Since the extended implementation date of April 1, 2005, has already passed, the Board’s delay in implementing the 0.7 EC objective until that date is a moot issue. However, the provision in Decision 1641 that replaces the 0.7 EC objective with the 1.0 EC objective under certain conditions <i>after</i> April 1, 2005, is not moot....[T]he Board must either fully implement the southern Delta salinity objectives as set forth in the 1995 Bay-Delta Plan or must duly amend the plan.” (Emphasis in original.)</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
<p>2006 Water Quality Control Plan, December 13</p>	<p>Table 2: Tracy Road Bridge on Old River; Old River near Middle River; Brandt Bridge on San Joaquin River; Vernalis on San Joaquin River—April 1 through August 31 0.7 EC; September 1 through March 31 1.0 EC. Maximum 30-day running average of mean daily EC (mmhos/cm)</p>	<p>Page 10: “The water quality objectives in this plan apply to waters of the San Francisco Bay system and the legal Sacramento-San Joaquin Delta, as specified in the objectives. Unless otherwise indicated water quality objectives cited for a general area, such as for the southern Delta, are applicable for all locations in that general area and compliance locations will be used to determine compliance with the cited objectives.”</p> <p>“Page 11: “The water quality objectives in Table 2 provide reasonable protection of the beneficial use AGR, from the effects of salinity intrusion and agricultural drainage in the western, interior, and southern Delta. These objectives are unchanged from the 1991 Bay-Delta Plan.”</p> <p>Page 27: “<u>Agriculture in the Southern Delta</u>: The water rights of the DWR and the USBR are conditioned upon implementation of the southern Delta salinity objectives to protect agricultural beneficial uses. Implementation of salinity objectives in the southern Delta requires a mix of salt load control and flow related measures. It is there fore discussed in section B of the Program of Implementation....”</p> <p>Page 28: “The salinity objectives for the interior southern Delta can be implemented by measures that include state regulatory actions, state funding of projects and studies, regulation of water diversions, pollutant discharge controls, improvements in water circulation, and long-term implementation of best management practices to control saline discharges.”</p> <p>Other approaches included DWR and USBR water rights permit conditions; Board-administered loan programs; Grasslands Bypass Project, Westside Regional Drainage Plan, San Luis Unit Feature Reevaluation Project, CVPIA land retirement program, and Delta-Mendota Canal Recirculation; and Central Valley Salinity Committee and Salinity Study Task Force. In addition, the Board identified:</p> <p>Page 31: “<u>South Delta Improvements Program</u>: DWR and USBR propose to construct permanent tidal gates in the southern Delta as part of the South Delta Improvements Program (SDIP). DWR and USBR expect that the gates project will assist in achieving the salinity objectives at the two Old River compliance measurement locations by improving water circulation in the southern Delta. Currently, DWR and USBR expect the project to be operational in the spring of 2009.”</p> <p>Page 32: “<u>Southern Delta Salinity Objectives</u>: There is a need for an updated independent scientific investigation of irrigation salinity needs in the southern Delta (similar to the investigation on which the current objectives are based). The scientific investigation should address whether the agricultural beneficial uses in the southern Delta would be reasonably protected at different salinity levels, whether management practices are available that would allow for protection of the beneficial uses at a higher salinity level in the channels of the southern Delta, and whether such management practices are technically and financially feasible....The State Water Board will conduct a workshop to discuss this subject in January 2007.”</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
<p>2006 Water Quality Control Plan, December 13; Appendix 1</p>	<p>Same as those in 2006 Water Quality Control Plan.</p>	<p>Pages 64-73: Extensive discussion of positions of various parties on the southern Delta salinity objectives.</p> <p>Page 67: “The State Water Board received information from several parties concerning the southern Delta agricultural salinity objectives. Some of that information concerned potential changes to the objectives or the program of implementation, while much of the information was related to other matters or proceedings outside of the scope of the review of the objectives. The SJRGA advocated increasing the salinity objectives at Vernalis to 1.0 mmhos/cm throughout the year and eliminating the objectives during August, September, and October of below normal, dry, and critically dry years. The San Joaquin River Water Authority Exchange Contractors (SJEC) also argued for increasing the 0.7 mmhos/cm southern Delta EC objectives to 1.0 mmhos/cm or higher. DWR and SWC did not recommend any specific changes to the salinity objectives; however, they did recommend that additional analyses be conducted to determine the appropriateness of the objectives. DWR also recommended various changes to the program of implementation to delay implementation of the 0.7 EC objective at the interior southern Delta sites until various actions occur. SWC also recommended a review of DWR’s responsibility for implementing the objectives at Brandt Bridge. SDWA opposed increasing the salinity objectives and advocated increasing the effective period of the 0.7 EC objective from March 1 through September 30. CCWD, the Central Valley Regional Water Board, and the USEPA recommended that no changes be made to the southern Delta agricultural EC objectives.”</p> <p>Page 72: <u>Conclusion</u>: The State Water Board does not have adequate evidence on which to base substantive changes to the southern Delta EC (salinity) objectives for the protection of agricultural beneficial uses at this time. Therefore, these objectives remain unchanged in the 2006 Plan. The State Water Board will receive additional information on the objectives and their implementation beginning in January 2007.</p> <p>“Footnote 5 of Table 2 of the 1995 Plan states that the 0.7 mmhos/cm EC objective will be implemented at the two Old River sites by December 31, 1997. The 2006 Plan deletes this footnote because it is obsolete. Currently, DWR and USBR are responsible for meeting both the 1.0 and the 0.7 EC objectives at these sites. The 2006 Plan also deletes the statement in Table 2 of the 1995 Plan regarding a three-party contract, since the objectives have already been implemented. As necessary, the State Water Board may review the southern Delta EC objectives or their implementation in the future as conditions warrant.”</p> <p>The Board further indicated in conclusion that it would continue to consider the matter, and encouraged other agencies to assist in achieving the southern Delta salinity objectives.</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
<p>2008 SWRCB Strategic Workplan, July</p>	<p>Same as those in 2006 Water Quality Control Plan.</p>	<p>Southern Delta Salinity and San Joaquin River Flow Objectives work item, discussed from pages 62 through 68. Southern Delta Salinity discussed, pages 62-65.</p> <p>“Goal: The goal of this activity is to ensure that the water quality objectives included in the Bay-Delta Plan for southern Delta salinity...are protective of the specified beneficial uses and that the objectives are appropriately implemented.”</p> <p>Objective: conduct concurrent basin planning and water rights proceeding for both sets of objectives. Additionally, the Board intended to evaluate compliance with both sets of objectives and take enforcement and other actions as appropriate.</p> <p>“Impetus: The southern Delta salinity and San Joaquin River flow objectives and the implementation of those objectives may not be appropriate. Revised objectives and implementation may benefit beneficial uses including: San Joaquin Basin salmonids, pelagic organisms and other species; and may improve San Joaquin River water quality (salinity, DO, and other constituents). In addition the State Water Board committed to review these issues in the 2006 Bay-Delta Plan. Further both issues constitute an ongoing compliance problem....”</p> <p>Page 64: ““The southern Delta salinity compliance issues are closely connected with the use of Joint Points of Diversion. In D-1641, the State Water Board approved a petition filed by DWR and USBR for use of each other’s points of diversion in the southern Delta (known as “JPOD”). The State Water Board approved JPOD in three stages that allow for incremental increases in diversions and require corresponding increases in mitigation for potential impacts to other water users and the environment. Authorization for all stages of JPOD is subject to compliance by DWR and USBR with all of the conditions of their water rights, including compliance with the southern Delta salinity objectives, regardless of whether JPOD would adversely affect southern Delta salinity. In 2007, DWR and USBR conducted JPOD while the southern Delta salinity objectives were being exceeded to make up for major export reductions taken to protect delta smelt (Stage 1). Due to the unique circumstances occurring that year, the State Water Board did not take enforcement action. DWR and USBR anticipate the need to again conduct significant JPOD diversions this year while the salinity objectives are potentially being exceeded to make up for export reductions imposed by a federal court to protect delta smelt. The question of enforcement, and what constitutes a violation, will continue to be an ongoing issue. southern Delta salinity. In 2007, DWR and USBR conducted JPOD while the southern Delta salinity objectives were being exceeded to make up for major export reductions taken to protect delta smelt (Stage 1). Due to the unique circumstances occurring that year, the State Water Board did not take enforcement action. DWR and USBR anticipate the need to again conduct significant JPOD diversions this year while the salinity objectives are potentially being exceeded to make up for export reductions imposed by a federal court to protect delta smelt. The question of enforcement, and what constitutes a violation, will continue to be an ongoing issue.”</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
2009 Periodic Review	Same as those in 2006 Water Quality Control Plan.	<p>The Periodic Review described the process the Board expected for evaluating southern Delta salinity objectives, and considered sources of salinity to the southern Delta; source loading and evapo-concentration; and flow-related concentration effects. (Pages 14-16.)</p> <p>Page 16: "The way flow is managed in the watershed leads to conditions that either result in accumulation of salt in soils and groundwater or otherwise have an effect on salinity concentrations in the San Joaquin River watershed and southern Delta.</p> <ul style="list-style-type: none"> • "Under most hydrologic conditions the CVP pumps near Tracy entrain much of the flow from the San Joaquin River at the head of Old River; the associated salt load is then re-circulated back to the river via the DMC [Delta Mendota Canal], effectively trapping and accumulating salt within the watershed. Between 1977 and 1997 the DMC contributed approximately 513,000 tons or 47 percent of the total annual salt load in the San Joaquin River at Vernalis [citation]. • "Water exports out of the basin and diversions to storage from low salinity sources and subsequent consumptive use act to increase salinity concentrations in downstream surface waters of the watershed. For example, the export of Hetch-Hetchy water from the Tuolumne River removed from the San Joaquin River watershed an average of 250,000 acre-feet per year between 1985 and 1994, which is estimated to have increased salinity concentration in the San Joaquin River during that period from 506 microsiemens/cm ($\mu\text{S}/\text{cm}$ equal to micromhos/cm) to 570 $\mu\text{S}/\text{cm}$ [citation]. Conversely, activities that provide relatively lower EC water to the river system can result in lower salinity. • "Occasional inputs of Sacramento River water to the interior southern Delta can occur depending on Sacramento and San Joaquin River hydrology, SWP and CVP operations, and temporary barrier operations. DWR fingerprint modeling analysis shows these inputs occur primarily at Old River near Tracy, and Old River near Middle River. When these inputs occur there is typically a corresponding decrease in salinity concentrations at those same locations [citation]. <p>"The averaging periods and temporal occurrence of the above loading information varies. Therefore it is not intended to be provided for direct comparison, but rather to demonstrate the relative effect of each factor. Better information and analysis regarding the above conditions will be needed to develop a comprehensive salt balance for the southern Delta. Such analyses will inform development of a program of implementation for salinity objectives in any updates to the Bay-Delta Plan."</p>

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Year/ Document	South Delta Salinity Objectives	Narrative Quotation or Explanation
<p>2010 Cease and Desist Order Modification, January 5</p>	<p>See D-1641.</p>	<p>Page 8: “Since the State Water Board issued the 2006 CDO against DWR and USBR in February 2006, salinity levels at Station P-12 (Old River at Tracy Road Bridge) have exceeded the 0.7 mmhos/cm salinity objective on numerous occasions. According to the exceedance reports that USBR and DWR submitted to the State Water Board as part of this proceeding, the salinity objective was exceeded at Station P-12 during the following periods: (1) April 2007...; (2) June 16 through July 13, 2008...; (3) April 1 through April 20, 2009...; and (4) June 24 through July 3, 2009....In addition the exceedance reports...indicate that the salinity objective was exceeded at Station C-6 (San Joaquin River at Brandt Bridge) from Juen 25 through July 13, and at Station C-8 (Old River near Middle River) from June 22 through July 13, 2008. [citation]</p> <p>“The only corrective action identified in DWR’s and USBR’s exceedance reports that DWR or USBR took in order to avoid or curtail exceedances of the interior southern Delta salinity objective was the implementation of the temporary barriers program. [citation] The temporary barriers program entails the seasonal construction and operation of three flow barriers in the souther Delta. [citation] As stated earlier, the temporary barriers improve salinity levels, but they are not sufficient by themselves to ensure that the objective will be met. [citation]”</p> <p>Page 19: “We find that DWR and USBR have been diligent in their efforts to obtain the approvals necessary to construct permanent, operable gates in the southern Delta in accordance with the compliance plan approved by the Executive Director in 2006. That plan is no longer viable, however, in light of NOAA Fisheries’ recent biological opinion, and the associated delay and uncertainty regarding the feasibility of constructing the permanent gates. In recognition of the fact that it will take time to develop and implement a revised compliance plan, we will extend the [Page 20] compliance deadline set forth in the Order WR 2006-0006....We will also require DWR and USBR to provide any technical assistance necessary to support our efforts to complete our review of the 2006 Bay-Delta Plan and any subsequent water right proceeding expeditiously.”</p> <p>Pages 20-27: The Board modified the CDO to require DWR and USBR submit a revised, detailed compliance plan to the Board; continue the temporary barriers program in the south Delta in consultation with South Delta Water Agency; USBR would complete a Delta Mendota Canal Recirculation Project Feasibility Study; DWR and USBR would “study the feasibility of controlling salinity by implementing measures other than the temporary barriers project, recirculation of water through the San Joaquin River, and construction and operation of the permanent, operable gates.” Two studies were required: a low-head pump study and a dilution study that would examine increase San Joaquin River flows needed to achieve compliance with interior southern Delta salinity objectives.</p>