



AQUALLIANCE
DEFENDING NORTHERN CALIFORNIA WATERS



May 23, 2011

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State Water Resources Control Board
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Subject: Comment Letter—Southern Delta Ag and SJR Flow Revised NOP

Dear Chair Charles Hoppin and Members of the Board:

The California Water Impact Network, the California Sportfishing Protection Alliance, and AquAlliance here provide the State Water Resources Control Board with comments on the revised Notice of Preparation of the Board's Substitute Environmental Document (SED) on the Board's current review of the Bay-Delta Water Quality Control Plan. Our comments also reflect the combination of Notices dated February 13, 2009, and April 1, 2011 (containing revisions to the earlier Notice). The Board specifically requests the public's views as to the scope and content of the environmental information to be included in the SED.

Many of our previously submitted comments from our recent communications about or related to the San Joaquin River flow and South Delta salinity objectives process apply to the Board's preparation of its SED. Our organizations incorporate by reference our letters (and their accompanying attachments) to the Board dated December 6, 2010 (concerning the Board's draft technical report released October 29, 2010); and February 8, 2011 (concerning San Joaquin River flow and South Delta salinity objectives issues). The February 2011 letter incorporates by reference five other letters and communications to the Board and to the Delta Stewardship Council, which we incorporate here by reference.

We also request that the Board incorporate into preparation of the SED its full informational and video record from the Delta Flow Criteria proceeding from January through April 2010. Because of omissions of key criteria from the Board's proposed Water Quality Control Plan amendments contained in the NOP, we are concerned that the best available scientific information presented at this proceeding will not be used effectively in preparation of the SED.

General Comments

The State Water Resources Control Board announces in these two notices its intent to revise the Bay Delta Water Quality Control Plan of 2006. This plan traces its lineage to the 1995 Bay Delta Water Quality Control Plan and the Bay-Delta Accord. The Bay-Delta Accord spawned a number of failed initiatives, of which the 2006 Bay-Delta Water Quality Control Plan and its predecessor the 1995 Water Quality Control Plan are its most sustained issue. Bay-Delta Accord

C-WIN, CSPA, and AquAlliance believe that the San Joaquin River flow and South Delta salinity objective process is a step in the right direction away from these failed plans. From what we see in

the two NOPs, the Board prepares to incorporate flow objectives for major tributaries of the San Joaquin River: the Stanislaus, the Tuolumne, and the Merced rivers. It appears to us the Board intends to require fair share flow contributions from each of these important rivers to flows of the mainstem San Joaquin. Our organizations welcome this prospect in concept, and support the Board's efforts toward this goal, despite legal, ecological, and engineering challenges ahead.

This step by the Board away from the Bay-Delta Accord and its water quality planning progeny is necessary, not optional. The Board pledged its allegiance to the Bay-Delta Accord for far too long. In clinging to this planning framework for the Bay-Delta Estuary, the Board failed in its duty to protect public trust resources and exercise its water quality planning responsibilities. The well-documented failures of this misguided loyalty include:

- Anadromous fishery declines throughout the Central Valley watershed of the Delta estuary.
- Declines of pelagic (open water) aquatic ecosystem regimes throughout the Delta
- Continued listing of endangered species, including salmon, steelhead, Delta smelt, longfin smelt, Sacramento splittail, and green sturgeon.
- Chronic violations from 2005 through 2009 of south Delta salinity objectives in both the Bay-Delta Water Quality Control Plan and Water Rights Decision 1641 that are intended to protect agricultural beneficial uses in this part of the Delta.
- Historic record Delta pumped exports between 2000 and 2006, peaking at nearly 6.4 million acre-feet.

As California's primary water regulator, the State Water Resources Control Board's primary mode of operation in the Delta estuary's case has been to backpedal from a global perspective in water quality planning; its primary use of time has been to delay decisive action consistent with its duties to prohibit waste and unreasonable use of water and protect public trust resources. C-WIN, CSPA, and AquAlliance remain skeptical of the Board's willingness to act effectively, but are still hopeful.

Our organizations are pleased to know from the Board's actions since 2009 that previous plans are likely to be set aside in the next few years. The most important questions are: With what? and how will the Board go about preparing its Water Quality Control Plan and the associated environmental review?

The 1986 Delta Water Cases decision (also known as the Racanelli decision for its author, presiding judge John Racanelli of the Third District Court of Appeals in California) bears revisiting. It provides a continuing relevant definition of the Board's water quality planning duties for the Delta and its watershed. When it comes to the Board's role in undertaking its duty to fulfill its water quality planning function, the Racanelli court stated:

In its *water quality* role of setting the level of water quality protection, the Board's task is not to protect water rights, but to protect 'beneficial uses.' The Board is obligated to adopt a water quality control plan consistent with the overall statewide interest in water quality [citation to California Water Code §13240] which will ensure 'the reasonable protection of *beneficial uses*' (§13241, emphasis added). Its legislated mission is to protect the 'quality of all the waters of the state...for use and enjoyment by the people of the state.' (§ 13000, 1st para., emphasis added.)¹

¹ *United States of America et al, v. State Water Resources Control Board* (and seven other cases), 182 Cal.App. 3d 82, p. 178. Decision released May 28, 1986. In July 1986, the California Supreme Court declined to review the cases further.

Thus, protection of beneficial uses is the goal here. Concern for water rights of the major stakeholders must be secondary. It is the beneficial uses which must receive Board attention in the process of public trust balancing and analysis. Water rights are implementation tools for achieving the protection of beneficial uses in California's Central Valley watershed and Delta estuary.

Judge Racanelli wrote that the State Water Resources Control Board has a dual role of regulating both water quality and adjudicating water rights. The Racanelli court stated:

In performing its dual role, including development of water quality objectives, the Board is directed to consider not only the availability of unappropriated water...but also *all* competing demands for water in determining what is a reasonable level of water quality protection.²

The Delta Water Cases came about because the Board construed its scope for water quality planning narrowly, focusing on the major stakeholders in the Delta: the Bureau, the Department of Water Resources, and their respective contractors. The Board erred in doing so, the Racanelli court stated.

...the Board must consider 'past, present, and probable future beneficial uses of water'...as well as 'water quality conditions that could reasonably be achieved through the coordinated control of *all* factors which affect water quality in the area'. Unfortunately, the Board neglected to do so.³

That was 25 years ago. As we will indicate below, C-WIN, CSPA, and AquAlliance are deeply concerned that the Board is still prepared to neglect significant and realistic alternatives that will be essential to fulfilling its water quality planning role for solving problems in the Bay-Delta estuary and the larger Central Valley watershed.

Fortunately, the Board can avoid such neglect. Judge Racanelli wrote that the Board "need only take *the larger view of the water resources* in arriving at a reasonable estimate of all water uses, an activity well within its water rights function to determine the availability of unappropriated water." And he added, "We think a similar *global perspective* is essential to fulfill the Board's water quality planning obligations."⁴ Judge Racanelli stated later that the Board compromised its role in previous water quality control plans when it defined its scope for action too narrowly "in terms of enforceable water rights. In fact," the judge wrote, "the Board's water quality obligations are not so limited."

...in order to fulfill adequately its water quality planning obligations, we believe the Board cannot ignore other actions which could be taken to achieve Delta water quality, such as remedial actions to curtail excess diversions and pollution by other water users.⁵

² *Ibid.*, p. 179-180.

³ *Ibid.*, p. 180.

⁴ *Ibid.* Emphasis added.

⁵ *Ibid.*, p. 182.

The Board's "paramount duty" remains to "provide 'reasonable protection' to beneficial uses, considering all the demands made upon the water." Finally, Judge Racanelli concludes about the Board's water quality planning powers:

Thus, we do not believe that difficulty in enforcement justifies a bypass of the legislative imperative to establish water quality objectives which in the judgment of the Board will ensure reasonable protection of beneficial uses.⁶

Our organizations believe that any credible water quality control plan for the Bay Delta estuary must take what Racanelli deemed the "global perspective" in order to redress the ecological collapse and cumulative salinization and pollution resulting from the Board's water quality planning efforts to date. The Bay-Delta Accord's pendulum swung too far in favor of water right holders and water contractors, and their respective beneficial uses. The Board's duty now is to credibly balance all of the beneficial uses of water in the estuary so that public trust resources are protected, and so that reasonable uses and methods of diversion of water are employed by all water users.

In addition to the water quality planning obligations that Judge Racanelli eloquently addressed, recent state legislation provides additional authority to the State Water Resources Control Board. Using this added authority, the Board can better protect water quality and beneficial uses in the Bay-Delta Estuary and the Central Valley watershed. We point to two new laws enacted in 2009.

The State Water Resources Control Board has already fulfilled its obligation under California Water Code Section 85086(c) and (e) to prepare a public trust assessment of the Bay-Delta flow criteria needed to protect fish and wildlife beneficial uses. While not a "balancing" analysis required under public trust doctrine in California, the Board's *Delta Flow Criteria Report* (August 2010) provides valuable scientific analysis and findings that must be used to help the Board fulfill its water quality planning responsibilities and achieve protective public trust resource outcomes in the Bay-Delta estuary.⁷ The report employed the best available science in arriving at its findings. The information can and should be used in preparation of the SED.

The same legislative package changed the California Water Code to recognize the need to reduce reliance on the Delta as a source of water for California:

85021. The policy of the State of California is to reduce reliance on the Delta in meeting California's future water supply needs through a statewide strategy of investing in improved regional supplies, conservation, and water use efficiency. Each region that depends on water from the Delta watershed shall improve its regional self-reliance for water through investment in water use efficiency, water recycling, advanced water technologies, local and regional water supply projects, and improved regional coordination of local and regional water supply efforts.⁸

⁶ *Ibid.*

⁷ State Water Resources Control Board, *Development of Flow Criteria for the Sacramento-San Joaquin Delta Ecosystem*, prepared pursuant to the Sacramento-San Joaquin Delta Reform Act of 2009, adopted August 3, 2010. Hereinafter referred to as *Delta Flow Criteria Report*.

⁸ California Water Code § 85021, passed November 2009.

These new laws provide the Board with additional legal and political tools aiding the protection of all beneficial uses, particularly the fish and wildlife beneficial uses whose protection has been neglected for decades.

Unfortunately, it appears to C-WIN, CSPA, and AquAlliance that the Board still prefers not to apply a global perspective and full use of its powers:

- The exclusion of the upper San Joaquin River basin above the river's confluence with the Merced River is not adequately explained.
- The Board fails to specify a proposed project for its San Joaquin River flow criteria. It does not specify a proposed flow standard as a percent of unimpaired flow in the river basin at Vernalis and does not explicitly discuss compliance points on tributaries.
- Of the range of potential flow percentages proposed for analysis, the Board does not include an alternative that would require bypass of 75 percent of unimpaired flow on the San Joaquin River, even though this figure was considered for the Sacramento River watershed in the *Delta Flow Criteria Report*. The Board should explain a 75 percent criterion in the SED or justify why its consideration is unreasonable.
- The proposed San Joaquin River flow language in the NOP's Attachment 2 does not consider that San Joaquin River exports from Friant Dam to Kern County are an important cause of flow deficiencies to the Delta and of South Delta salinity problems.⁹ Exports into the Friant-Kern Canal average about 1,050,000 acre-feet per year, according to the Friant Water Authority.¹⁰ The needs of the San Joaquin River and the South Delta for adequate flows and compliance with salinity objectives could be met in large measure from Friant exports.
- The Board offers new salinity criteria for interior South Delta locations that would increase allowable salinity (as measured by Electrical Conductivity) by 40 to 43 percent, in order to reduce potential violations of salinity objectives by the California Department of Water Resources and the US Bureau of Reclamation. This does not solve salinity problems in the Delta; instead, it defines them away. This approach has it backwards: the problem in the south Delta is not the salinity objectives, but the salinity in the water that comes largely from operations of the federal Central Valley Project supplying water for irrigation to lands full of salt and other even more toxic constituents.
- The Board provides no salinity source control program for agricultural drainage discharged from the western San Joaquin Valley. Water Right Decision 1641 in 2000 stated that

⁹ The US Water and Power Service and South Delta Water Agency jointly studied effects of the Central Valley Project in the upper San Joaquin River basin (the area above the confluence with the Merced River, and found that "the flow of the San Joaquin River at the Vernalis gage during the April-September period average 1,020,000 acre-feet less in the 1952-1966 period than in the 1930-1944 period when adjusted for the difference in unimpaired rim flow." US Water and Power Resources Service and South Delta Water Agency, *Effects of the CVP Upon the Southern Delta Water Supply, Sacramento-San Joaquin River Delta, California*, June 1980, p. 29.

¹⁰ Ronald D. Jacobsma, General Manager, Friant Water Authority, *San Joaquin River Settlement Water Supply Impacts and Water Management Goal*, presentation to the State Water Resources Control Board, November 15, 2010.

irrigation drainage from the western San Joaquin Valley, specifically from lands irrigated in the Grasslands and Westlands areas, must be subject to greater regulation for salinity and other water quality criteria. Unfortunately, the State Water Resources Control Board gave the US Bureau of Reclamation latitude to use releases from New Melones Reservoir and installation of a “barrier program” in the southern Delta to help ensure salinity objectives are met. What the Board intended as a “floor” of actions (since the Board gave the Bureau “latitude”) became a “ceiling” for the Bureau. As shown by protestants in the Cease and Desist Order hearings in 2009, the Bureau failed to take any other actions to uphold its responsibility for salinity compliance since 2005. In Water Rights Order 2010-0002, the Board opted to add five more years to the Bureau’s compliance period as a reward for its failure to comply.¹¹ The State Water Board and the Central Valley Regional Board also approved a Basin Plan amendment allowing the Bureau and the Grasslands Drainers to continue discharging highly saline and seleniferous agricultural pollution into Mud Slough North and into the San Joaquin River upstream of the Merced until 2020. The State Water Board has gone over a decade now without meaningfully addressing the issue of salinity source control under D-1641 and the 1995 water quality control plan, and it has avoided enforcing salinity objectives since the 1950s.¹² The State Water Board has also waived implementation of selenium water quality objectives for nearly a quarter of a century for the Grasslands area, which also allows discharge of the single largest source of salt in the San Joaquin basin.

C-WIN, CSPA, and AquAlliance believe the State Water Resources Control Board continues its record of backpedaling and delay in protecting public trust resources of the Bay-Delta estuary. Indications of this continuing behavior pattern are contained in the Board’s revised Notice of Preparation. We respectfully hope that the Board will strengthen its resolve to protect public trust resources through the mechanisms of the water quality control plan and its environmental review to sharpen the Board’s analyses, findings, and actions to carry out its protective obligations.

When preparing its SED, C-WIN, CSPA, and AquAlliance request that the Board take account of the following:

Project Description

San Joaquin River Flow Objectives. We applaud the State Water Resources Control Board’s decision to include the major tributaries of the San Joaquin River Basin (specifically, the Stanislaus, the Tuolumne, and Merced rivers) in its proposed analysis of San Joaquin River flow requirements. However, the Board has not provided adequate rationale to justify excluding the San Joaquin River above its confluence with the Merced River (the “upper San Joaquin River”) from the “project area” for purposes of environmental evaluation of proposed San Joaquin River flow criteria.¹³ We are

¹¹ State Water Resources Control Board, *Order WR 2010-0002: In the Matter of Cease and Desist Order WR 2006-0006 against the Department of Water Resources and the United States Bureau of Reclamation in Connection with Water Right Permits and License for the State Water Project and Central Valley Project*, p. 21, condition 2.

¹² Testimony of Tim Stroshane, Senior Research Associate, California Water Impact Network, *Petition of US Bureau of Reclamation & California Department of Water Resources Concerning Delta Salinity Draft Cease and Desist Orders and Quality Quality Response Plan Hearing*, before the State Water Resources Control Board, Sacramento, California, Thursday June 25, 2009, Exhibit 4. Online at http://www.swrcb.ca.gov/waterrights/water_issues/programs/hearings/wr2006_0006/exhibits.shtml#cwin, accessed May 17, 2011.

¹³ Refer to map on page 1 and page 3 of 6 of Attachment 2 of the revised NOP dated April 1, 2011.

highly skeptical that such a rationale can be sustained. The State Water Resources Control Board wants to use the criterion of “salmon-bearing tributaries” in the NOP that to justify excluding the upper San Joaquin River. The Board then states in a footnote:

Currently, the San Joaquin River does not support salmon runs upstream of the Merced River confluence (upper San Joaquin River). However, pursuant to the San Joaquin River Restoration Program (SJRRP), spring-run Chinook salmon are planned to be reintroduced to the upper San Joaquin River no later than December 31, 2012. Flows needed to support this reintroduction are being determined and provided through the SJRRP. During the next review of the Bay-Delta Plan, the State Water Board will consider information made available through the SJRRP process, and any other pertinent sources of information, in evaluating the need for any additional flows from the upper San Joaquin River Basin to contribute to the narrative San Joaquin River flow objective.

In essence, if it adheres to this reasoning during this process, the State Water Resources Control Board would allow the SJRRP to determine what those flows are to be, and would allow the SJRRP to dictate the Board’s time schedule. This provides incentive to minimize the upper San Joaquin River’s contribution to overall basin flows to benefit the Delta. It will put greater pressure on the water right holders on the tributaries of the San Joaquin to provide additional flows. In its Water Rights Orders 2010-0029 and 2009-0058-DWR, the Board authorized interim schedules for “experimental flows” sought by the parties to the San Joaquin River Restoration Program and settlement agreement. At minimum, these interim flows should be incorporated into the project description, so that it is clear that upper San Joaquin River flows will contribute to solving flow and water quality problems in the Delta. In addition, there needs to be a basic description in the SED of how future contributions from the upper San Joaquin River will contribute to improving the health of the Bay-Delta estuary. This can be expressed in the form of project alternatives, but it cannot simply be deferred.

Our organizations also appreciate the fact that the Board retains the February 1 through June 30 period and the October pulse flow periods as vital foci of its attention on the San Joaquin River flow objectives. However, we do not believe that the NOP’s project description of “X percent of unimpaired flow” is a legally adequate project description for the February through June period.

The State Water Resources Control Board should commit to specified flow criteria for the project description and use the SED’s required Alternatives analysis to evaluate the efficacy of alternative percentages of unimpaired flow criteria against the project description. This will provide a strong and defensible approach to the preparation of the SED that was recommended for the San Joaquin River in the *Delta Flow Criteria Report* from August 2010 for the San Joaquin River.

Failure to assign a definite flow criterion to the project description would cause a fatal flaw in the SED. “An accurate, stable and finite project description is the *sine qua non* of an informative and legally adequate EIR.” *County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192; *Berkeley Jets*, 91 Cal.App.4th at 1354; *Sacramento Old City Assn. v. City Council* (1991) 229 Cal. App. 3d 1011, 1023; *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal. App. 4th 182, 201. “[A] curtailed or distorted project description,” on the other hand, “may stultify the objectives of the reporting process. Only through an accurate view of the project may affected outsiders and public decision-makers balance the proposal’s benefit against its environmental costs, consider mitigation measures, assess the advantage of terminating the proposal (*i.e.*, the “no project” alternative) and weigh other alternatives in the balance.” *Id. See also*, CEQA section 15124; *City of Santee v. County of San Diego*, 263 Cal.Rptr 340 (1989). As one commenter has noted:

The adequacy of an EIR's project description is closely linked to the adequacy of the EIR's analysis of the project's environmental effects. If the description is inadequate because it fails to discuss the complete project, the environmental analysis will probably reflect the same mistake. (Kostka and Zischke, "Practice Under the California Environmental Quality Act," p. 474 (8/99 update).)

In essence, if it adheres to this reasoning during this process, the State Water Resources Control Board would allow the SJRRP to determine what those flows are to be, and would allow the SJRRP to dictate the Board's time schedule. This provides incentive to minimize the upper San Joaquin River's contribution to overall basin flows to benefit the Delta. It will put greater pressure on the water right holders on the tributaries of the San Joaquin to provide additional flows. In its Water Rights Orders 2010-0029 and 2009-0058-DWR, the Board authorized interim schedules for "experimental flows" sought by the parties to the San Joaquin River Restoration Program and settlement agreement. At minimum, these interim flows should be incorporated into the project description, so that it is clear that upper San Joaquin River flows will contribute to solving flow and water quality problems in the Delta. In addition, there needs to be a basic description in the SED of how future contributions from the upper San Joaquin River will contribute to improving the health of the Bay-Delta estuary. This can be expressed in the form of project alternatives, but it cannot simply be deferred.

SED Alternatives Analysis

In preparing the Alternatives analysis in its SED, the Board's document should incorporate the following considerations:

- Each alternative should include the upper San Joaquin River basin as part of the project area for the San Joaquin River flow and the South Delta salinity objectives revision.
- Each alternative should be studied at the same level of detail as that required for the project description.
- The document should identify an environmentally superior alternative, as required by the California Environmental Quality Act, and specify criteria applied by the Board in the SED so that the public and decision makers can understand the logic that informed the choice.
- The Board should address terrestrial habitat components that address ecological function in addition to flow and salinity parameters, such as floodplain inundation, etc., as recommended by the UC Davis experts in the Delta Flow Criteria informational proceeding in early 2010.

The Board should include analysis of these reasonable and feasible alternatives:

- The Board should include a 75 percent of unimpaired flow at Vernalis flow alternative. As we noted in our December 6, 2010 comments on the Draft San Joaquin River Technical Report, "while staff initially recommended [75 percent of unimpaired flow] for the San Joaquin River, the draft [Delta flow criteria] report, as released only recommended a 60% criterion for San Joaquin River inflows. There was no discussion or justification for the difference."¹⁴

¹⁴ Letter to Jeanine Townsend and State Water Resources Control Board Members concerning *SJR Technical Report Comments*, 6 December 2010, p. 5, "Range of Alternatives."

- The Board should also analyze 20, 40, and 60 percent of unimpaired flow at Vernalis flow alternatives.
- The Board should evaluate the feasibility and impacts of ending exports from Friant Dam through the Friant-Kern Canal out of the San Joaquin River basin to Tulare, Kings, and Kern counties, to see what potential beneficial impacts this would have on the Bay-Delta estuary, San Joaquin River flows, and Bureau of Reclamation compliance with existing and proposed south Delta salinity standards.¹⁵ This alternative would add as much as 1 million acre-feet annually to San Joaquin River inflows to the South Delta, with likely beneficial impacts to fish, wildlife, and agricultural beneficial uses there.
- The Board should evaluate the feasibility and impacts of reducing or ending diversions on the Tuolumne River by the City and County of San Francisco, replacing all or part of San Francisco's supplies with water diverted through the Contra Costa Canal for storage at Los Vaqueros, or through new facilities to a new alternative west-of-Delta storage reservoir. In either case, conveyance from west-of-Delta storage would be made through interties to the South Bay Aqueduct and/or San Francisco's existing water delivery system. This alternative could add as much as 336,000 acre-feet annually of additional San Joaquin River inflows to the South Delta¹⁶, with likely beneficial impacts to fish, wildlife, and agricultural beneficial uses there, prior to diversion by the City and County of San Francisco's and Bay Area Water Users.
- A "Zero Friant Exports" alternative should be analyzed in a second alternative in combination with the San Francisco west-of-Delta Storage alternative. Total potential contributions of this combined alternative to San Joaquin River flows to the Delta could frequently exceed 1.3 million acre-feet of increased flow at Vernalis. This would deliver added Vernalis flow from the most junior major water rights holders on the East Side, thus complying with basic tenets of California's water rights doctrine of prior appropriation and with the Racanelli court's analysis of taking a "global perspective" in planning for reasonable water quality for all Delta and San Joaquin River beneficial uses.

Within each alternative, the following scenarios should be evaluated:

¹⁵ This alternative would address the question: Since exports at Friant-Kern Canal are flows of which the Delta is deprived, at what level of Friant flow releases and Friant-Kern exports in the San Joaquin River do conditions for fish and wildlife and agricultural beneficial uses improve and stabilize so that the US Bureau of Reclamation avoids further water quality compliance problems in the South Delta?

¹⁶ San Francisco's Hetch Hetchy System is a Delta diversion well upstream of the estuary on the Tuolumne River. It transfers water out of the Delta's watershed. Once entering the Hetch Hetchy Aqueduct, its waters generally never reach the Delta, but enter the San Francisco Bay watershed and are discharged directly into San Francisco Bay after use. This alternative would address the question: if high quality Tuolumne flows that are normally diverted into the Hetch Hetchy system above Moccasin are instead released into the San Joaquin River to provide beneficial instream flows in the San Joaquin River and the Delta before being diverted into the Contra Costa Canal, can San Francisco maintain its overall Delta watershed-based water supply, receive acceptable water quality, and restore the Hetch Hetchy Valley even as it helps benefit the Delta with increased inflows and improved South Delta salinity gradients?

- Each flow alternative should be analyzed with two salinity scenarios: existing south Delta salinity objectives and proposed objectives.
- Each alternative should be analyzed with the assumption that there would be no water transfers forthcoming from the Sacramento Valley under either a drought water bank framework or a long-term water transfer program framework. Similarly, no new diversions from the Sacramento River or new storage in the Sacramento Valley should be included either. This would help the Board understand effects of implementing its amended Bay-Delta Water Quality Control Plan in compliance with California Water Code Section 85021, discussed above.
- Each alternative should be analyzed with the inclusion of a complete shutdown or very low volume of export pumps at both the Banks and Jones pumping plants during periods when anadromous fish and other listed species are present, in place of the installation of temporary barriers in South Delta channels. This would protect fish and wildlife beneficial uses while avoiding the predator-friendly in-channel devices that reduce survival rates of listed species. Increased inflows during these periods would reduce residence time for these fish, while improving turbidity conditions that benefit species like Delta smelt and salmon smolts. South and Central Delta water users maintain that there are null zones where water quality is actually worse than appears in compliance point monitoring. Increased net downstream flows would help to flush these zones, while the absence or reduction of export pumping operations would help maintain South Delta water levels. Moreover, reduced Delta exports would also have the benefit of reducing salt discharges from western San Joaquin Valley lands that are presently such a large source of salt in South Delta channels.
- Each alternative should be analyzed with an Irrigated Lands Program scenario that assumes full compliance by agricultural drainage dischargers throughout the San Joaquin Valley—along the lines of the source control ideas outlined by the California Sportfishing Protection Alliance in its Irrigated Lands Regulatory Program comment letters of September 2010.¹⁷

Listed Species

- The SED should describe life histories of all listed species as fully as possible. Note that the Delta flow criteria reports by the State Water Resources Control Board and the California Department of Fish and Game have ready and scientifically excellent life history descriptions from which this analysis can be drawn.

Aquatic Biological Resources

- The SED should summarize all existing local fishery restoration efforts on major tributary streams, including the salmon restoration flows and stocking of the upper San Joaquin River under auspices of the San Joaquin River Restoration Program.
- The SED should describe the impacts to anadromous and other aquatic fish species of the proposed revisions to the Bay-Delta Water Quality Control Plan of changes in water quality

¹⁷ Letter of Michael R. Lozeau and Bill Jennings to Megan Smith, Pamela Creedon, and Adam Laputz, Central Valley Regional Water Quality Control Board, *California Sportfishing Protection Alliance Comments on Draft Irrigated Lands Regulatory Program - Program Environmental Impact Report*, September 27, 2010, "Section II: CSPA's Proposed (Effective, Protective and Legally Adequate) Irrigated Lands Regulatory Program," pages 4 through 7.

resulting from its implementation, including in particular the effects on aquatic biota of changes in South Delta salinity standards.

Surface Hydrology, Beneficial Uses, and Water Rights

- The SED must include a listing of the major water rights holders and state and federal project water contractors in the San Joaquin River basin, together with their permitted or licensed diversion rates and contributions to storage, and a description of how they receive their supplies.
- In the Setting, the SED should address the historical/unimpaired flow (near-natural) hydrograph with alterations to the hydrograph resulting from all component streams of the San Joaquin River and Delta by rim reservoir and Delta pumping operations.
- If CalSIM II and/or III are to be used to estimate water supply impacts from changes in reservoir and Delta pumping operations, the SED should fully disclose methodological and data limitations of the modeling effort, and should use sensitivity analysis to show the relative volatility of water supply impacts that results from changes in key assumptions. The Board should build into the SED's time schedule the peer review of all CalSIM II and III modeling results, in order to increase the public's confidence in how best to interpret the water supply impact results.
- The SED should consider scenarios both with and without a Bureau of Reclamation long-term cross-Delta transfers program from the Sacramento Valley to south-of-Delta buyers.
- The analysis in the SED should quantify the degree to which each water right holder is deprived of water supply under each alternative. How reliable are historic and anticipated deliveries, and the face value of water rights, given a range of flows contemplated by the State Water Board in its project description and alternatives? Such results would be useful to the Board in the WQCPs' implementation phase, as well as in subsequent water rights proceedings.
- The SED should include and evaluate reasonable climate change scenarios for the San Joaquin River basin flows.

Groundwater Hydrology

- The Setting section of the SED should describe the magnitude and general locations of groundwater overdraft prevalent in the San Joaquin Valley and San Joaquin River basin.
- The Setting should characterize which streams reaches are gaining flows from groundwater and which are losing flows to groundwater. The SED should describe expected effects of the project and its alternatives on these stream characteristics.
- The SED should describe expected effects on groundwater levels in geographically differentiated locations.
- The SED should include and evaluate reasonable climate change scenarios for the groundwater resources of the San Joaquin River basin.

Our groups are also acutely aware that there have been, and continue to be, intense efforts to “integrate” the northern Sacramento Valley groundwater into the state water supply. As discussed

above, all alternatives must assume the absence of any water transfers, with or without groundwater, from the Sacramento River watershed. Planning to destroy what semblance remains of healthy California waters to repair past and ongoing over-appropriation, pollution, and lack of enforcement of law is not only unacceptable but malevolent, and should not be considered here.

Water Quality

The SED should provide in its Setting section adequate descriptions of the State Water Resources Control Board's antidegradation policies, total mean daily load requirements, areas where agricultural waivers of discharge requirements are in place, and other regulatory programs that indicate the full range of the State Board's regulatory authority and capacity in the San Joaquin River Basin. Mitigation measures should identify programmatic objectives for the State Water Resources Control Board that will avoid or reduce impacts to less than significant levels.

The federal Clean Water Act states America's most basic water quality goals: 1) to ensure that no activity will lower water quality to support existing uses, and 2) to maintain and protect high quality waters. If the SED proceeds with the proposed relaxation of salinity standards, it must state how the proposed relaxation complies with this long-established and venerable policy.

The State Water Resources Control Board's "Statement of Policy with Respect to Maintaining High Quality of Waters in California," provides in relevant part, that:

Any activity which produces or may produce a waste or increased volume or concentration of waste and which discharges or proposes to discharge to existing high quality waters will be required to meet waste discharge requirements which will result in the best practicable treatment or control of the discharge necessary to assure that (a) a pollution or nuisance will not occur and (b) the highest water quality consistent with maximum benefit to the people of the State will be maintained.¹⁸

The Board currently has in place salinity objectives that are intended to protect agricultural beneficial uses in the South Delta. In addition to the compliance point at Vernalis on the San Joaquin River, there are three other compliance points in the interior Delta: Old River at Tracy Boulevard Bridge, Middle River at Old River, and the San Joaquin River mainstem station at Brandt Bridge, not far from the head of Old River. Between April 1 and August 31, the salinity standard for each of these compliance points is 0.7 EC, and the rest of the year it is 1.0 EC. The Board proposes to relax these standards at the compliance points below Vernalis to 1.0 EC between April 1 and August 31 and 1.4 EC the rest of the year.

The Board's SED must address the impacts to South Delta agricultural diverters and irrigators of relaxing the Board's salinity objective, and accordingly justify this proposed relaxation in light of the Board's stated antidegradation policy. This policy is required under the federal Clean Water Act. Our organizations do not believe that the proposed relaxation of South Delta salinity objectives is consistent with Board antidegradation policy and with the requirements of the federal Clean Water Act. As the State Water Resources Control Board is well aware, the Bureau and the Department have great difficulty achieving compliance with salinity standards at interior South Delta compliance stations. Our organizations view this proposed change in water quality objectives as a matter of moving the goalposts in order for the Bureau and the Department to evade compliance.

¹⁸ Resolution No. 68-16 (Oct. 28, 1968).

These proposed revisions to South Delta salinity objectives will not solve South Delta water quality problems. Null zones occur near each of the interior compliance points. Positive (net downstream) flows over time and during key seasonal periods are needed to improve water quality conditions in these zones. Temporary barriers (and proposed permanent operable gates) impede such flows, as do exports from the Banks and Jones pumping plants. In the absence of sufficient net downstream flows, reverse flows occur and interior South Delta water levels fall to where Delta irrigators cannot diver their flows. A key mitigation for the Board to consider is temporary cessation of Delta pumped exports to allow instream flows to facilitate fish migration and turbid open water conditions needed by Delta smelt. The State Water Resources Control Board must determine whether and how operational and flow options would create internal Delta hydrodynamics that more closely mimic natural flow conditions and reduce residence times, exposure to toxic stressors, and predation while in transit.

The Bureau's chronic salinity objective violations are the result of its failure to comply with the D-1641 condition that required it to develop a program to reduce salinity discharges at Vernalis using any method of source control it found it could use. The State Water Resources Control Board has failed to regulate the Bureau's facilitation of saline agricultural drainage from the western San Joaquin Valley to the Delta. In 2006, the Board imposed a cease and desist order, but the Board then relaxed the order in 2010. It now offers in the April 2011 Notice of Preparation proposed language that would permanently relax the interior South Delta salinity objectives themselves. The proposed new objectives are a sorry punctuation to the Board's practice of backpedaling and delay.

The proposal to relax salinity standards appears to be based upon the 5 January 2010 report titled *Salt Tolerance of Crops in the Southern Sacramento-San Joaquin Delta*, prepared by Dr. Glenn J. Hoffman for the Board. However, that non-peer reviewed report is pregnant with unwarranted assumptions, unsupported conclusions and significant data gaps. To base a revision of salinity standards on Dr. Hoffman's inadequate report would constitute malpractice and undermine any claim of impartiality or commitment to good science and environmental protection by the Board. Rather than proposing a revision in the salinity standards at this time, the Board should be arranging for peer review of the report and its underlying models, and funding the necessary comprehensive studies to eliminate the significant data gaps acknowledged by Dr. Hoffman. Repeated Board orders directing the Central Valley Regional Water Quality Control Board to develop and implement upstream salinity objectives have been ignored for many years. Had the Board not condoned the Regional Board's continued defiance, meaningful source controls for the massive salt loading from West Side sources would likely now be in place. Proposing to relax long-existing standards by using seriously inadequate and flawed data while continuing to ignore and excuse the primary source of salt loading is inexcusable.

Studies by the California Department of Water Resources (see table below) indicate the magnitude of the salinity problem coming from the San Joaquin River basin upstream of the Delta. Of the inflow to the Delta that does not come from northern Central Valley sources, 93 percent comes from the San Joaquin River. The salinity content of inflows to the Delta are similarly dominated by San Joaquin River inflows to the South Delta, where San Joaquin River salinity accounts for between 81 and 92 percent of total salinity at two interior compliance points (Old River at Tracy and Middle River at Old River).¹⁹

¹⁹ California Department of Water Resources, Bay-Delta Office, *Low Head Pump Salinity Control Study*, prepared to meet requirements of the California State Water Resources Control Board Water Rights Order 2010-0002, Condition A.7, April 2011, Figure III.5, p. 33.

The Central Valley Regional Water Quality Control Board (CVRWQCB) documented salinity source areas within the San Joaquin River basin, data which the Department of Water Resources summarized in its D-1641 water quality compliance report to the State Water Resources Control Board in 2006. The southwest and northwest portions of the basin (that is, those lands on the west side of the San Joaquin River) contributed an estimated 67 percent of the salinity measured at Vernalis. By contrast, the major tributaries (the Stanislaus, the Tuolumne, and the Merced rivers) contribute only about 20 percent of the salts that pass Vernalis and enter South Delta channels.²⁰

Historical Volume of Water and Salinity Contributions from Delta Inflow Sources (July through October, 2007 through 2009)				
Compliance Points	Sacramento River	San Joaquin River	In-Delta	SF Bay (Tidal)
Percent of Volume of Water from Delta Inflow Sources				
Old River at Middle River	0	93	7	0
Old River at Tracy	4	83	12	0
Salinity Sources in Delta Inflow (EC, in microSiemens/cm)				
Old River at Middle River	0	538	54	0
Old River at Tracy	8	486	90	16
Source: California Department of Water Resources, Bay-Delta Office, <i>Low Head Pump Salinity Control Study</i> .				

As a matter of statewide water policy, cost-effectiveness, and the public trust resource protection of the San Joaquin River and the agricultural beneficial uses of the South Delta, it is essential to focus source control efforts on agricultural drainage dischargers located in the western San Joaquin Valley. This area of the San Joaquin Valley discharges nearly three and a half times the amount of salt that is discharged by the eastern sources of the San Joaquin River basin upstream of Vernalis (see next page). It 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. These salts arrive in the Delta and contribute significantly to the compliance problems in the interior South Delta, as DWR's Low Head Pump study shows. They also compromise Delta water rights.

The efficacy of water rights and the quality of beneficial uses in the South Delta are determined largely by salinity of Delta inflows from the San Joaquin River. Dilution flows are part of the overall strategy the State Water Resources Control Board relies on to address South Delta salinity issues. The Board's strategy to date has focused almost exclusively on releases from New Melones Reservoir, owned by the Bureau of Reclamation, on the Stanislaus River. Water Rights Decision 1422, which governs operation of New Melones, called for water quality releases amounting up to 98,000 acre-feet of releases for fish and wildlife beneficial uses and such releases as necessary to maintain 500 parts per million of salinity at Vernalis. Given the Bureau's lack of compliance with these D-1641 water rights permit conditions, these releases are neither enough to maintain compliance by the Bureau at interior South Delta salinity compliance points, nor do they provide sufficient instream flow protection to listed aquatic species in South Delta channels. The Board's willingness to regulate New Melones Reservoir operations, a precedent dating back to the 1970s,

²⁰ Central Valley Regional Water Quality Control Board data reported in California Department of Water Resources, *Description of California Department of Water Resources Compliance with State Water Resources Control Board Water Rights Decision 1641*, January 2006, Appendix C, p. 39.

clearly demonstrates the Board’s authority and capacity to regulate upstream inflows to the Delta to protect beneficial uses downstream. Hence the State Water Resources Control Board’s interest in looking to additional sources of dilution flows from other San Joaquin River tributaries has both merit and precedent.

The Bureau of Reclamation recently studied dilution flows in order to comply with the modified Cease and Desist Order, Water Rights Order 2010-0002. The Bureau found that to meet the most lenient salinity objectives (1.0 EC in the non-irrigation season) in the interior South Delta, it was necessary to supply only an additional 100,000 to 200,000 acre-feet of water in dry years (about 14,000 to 29,000 acre-feet monthly), while meeting the most stringent salinity standard (0.7 EC in the irrigation season) in dry years would require as much as 1.3 to 1.4 million acre-feet (about 260,000 to 280,000 acre-feet per month during the irrigation season).²¹ Our organizations note that the Bureau’s estimate of flow volumes needed to meet the more stringent irrigation season salinity standard brackets the amount of water involved in our combined “Zero Friant” and rerouted San Francisco flow volumes, 1.3 million acre-feet. This further suggests that our proposed combined alternative merits study in the SED.

Land Use

- The Land Use Setting section should identify floodplains along all the major tributaries and upper San Joaquin River that would be inundated, and the anticipated frequency with which they would be inundated for purposes of slowing and dispersing flood flows and providing floodplain habitat for juvenile salmon preparing to migrate out of the San Joaquin River basin with spring flows.

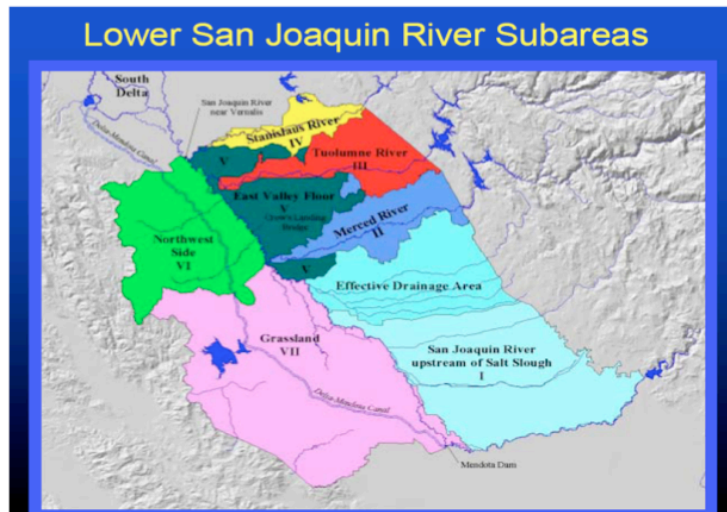
Cumulative Impacts

The State Water Resources Control Board should include the following in its analysis of cumulative impacts:

Table C-4. San Joaquin River at Vernalis

Approximate Sources of Salt	Area of Contribution
I SJR Upstream Salt Slough	9%
II Merced	
III Tuolumne	19%
IV Stanislaus	
V East Valley Floor	5%
VI Northwest Side	30%
VII Grasslands	37%
Total	100%

Figure C-4. Salt Source Contribution Areas of the Lower San Joaquin River



²¹ US Bureau of Reclamation, *Special Study: Evaluation of Dilution Flow to Meet Interior South Delta Water Quality Objectives To Meet Water Rights Order 2010-0002 Requirement 7*, April 8, 2011, p. 40, Tables 15 and 16.

- Federal Energy Regulatory Commission potential instream flows and other related water quality studies that have been or will be conducted in relation to relicensing processes under way for the Oroville Facilities the Merced River Project, and the Don Pedro Project.
- US Bureau of Reclamation and California Department of Water Resources compliance with the modified Cease and Desist Order in the Board's Water Rights Order 2010-0002.
- US Fish and Wildlife Service review of the federal Endangered Species Act status of the Sacramento Splittail.
- US National Marine Fisheries Service's Biological Opinions for operation of the Trinity River Division (both 2000 opinion and their upcoming opinion, provided it is timely for SED preparation).
- US Bureau of Reclamation and San Luis Delta Mendota Water Authority discharges of salt, selenium, and boron from the Grasslands Bypass Project, and their cumulative impact on Delta salinity objectives as well as impacts on efforts to restore Chinook salmon to the San Joaquin River upstream of the Merced River.

Conclusion

The noted fisheries biologist and Delta smelt expert William Bennett urged the State Water Resources Control Board in the March 2010 Delta flow workshops: "Be bold." To this we would add, "Think big." The State Water Resources Control Board should take this opportunity to do the Substitute Environmental Document of a lifetime. We hope that the Board will find ideas in this letter that will help make that possible.

Thank you for considering these issues, including all those we have incorporated by reference with this letter. C-WIN, CSPA, and AquAlliance look forward to our continued participation in this process.

Sincerely,



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