



"An Advocate for Fisheries, Habitat and Water Quality"

June 10, 2009

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Subject: 2009 Periodic Review Staff Report Comments

The California Water Impact Network (C-WIN) and the California Sportfishing Protection Alliance (CSPA) have reviewed the State Water Resources Control Board's (State Water Board) Draft Staff Report for the Periodic Review of the Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and we respectfully submit the following comments.

California has both state and federal clean water laws, state and federal Endangered Species Acts and a water code that specifies in great detail how water is to be allocated, reallocated, and put to maximum and reasonable beneficial use. The present reality of a disintegrating Delta ecosystem, seriously polluted waterways and collapsing fisheries, coupled with over 500 million acre-feet of water rights in a state that has an average runoff of 77 million acre-feet<sup>1</sup> is a searing indictment of the failures of the State and Central Valley Boards to enforce the law.

The State Water Board adopted the Bay-Delta Water Quality Control Plan in 1995 and waited until 2003 to initiate a review that took almost three years until adoption in 2006. We note that a triennial review should be conducted every three years, but is now treated by the State Water Board as a "periodic review." In the interval, the Delta became increasingly polluted, salmon and pelagic fish populations crashed while exports significantly increased. Despite an obviously collapsing estuary, the State Water Board limited itself to largely cosmetic modifications to the 1995 Plan and postponed addressing critical threats to the Delta until the future. It now appears that these urgent issues that include the enforcement of Delta water quality standards, consideration of the reasonableness of current Delta diversions, examination of whether application of water to impaired lands is a beneficial use and interim actions to protect fisheries, water quality and the public trust must wait until the State Water Board considers, in what will assuredly be the granddaddy of all evidentiary proceedings, the proposals resulting from the BDCP and Delta Vision processes.

In other words, the effect of State Water Board inaction appears to mean that it does not anticipate considering the C-WIN/CSPA public trust, unreasonable use and method of diversion petition until the Bay-Delta Conservation Plan process more fully develops the peripheral

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<sup>&</sup>lt;sup>1</sup> Face value of water rights and average runoff data are found online at: <a href="http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_0902">http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_0902</a> <a href="http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_0902">http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_0902</a> <a href="http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_0902">http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_0902</a> <a href="http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_0902">http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_0902</a> <a href="http://www.waterboards.ca.gov/water\_issues/hot\_topics/strategic\_plan/docs/final\_draft\_strategic\_plan\_update\_open\_draft\_strategic\_plan\_update\_op

canal/isolated conveyance projects. By then it will be too little too late for the Pelagic Organism Decline and the collapsing Central Valley salmon runs, as well as for ocean species like the southern resident killer whale. Delay and inaction by the State Water Board is an unreasonable and unacceptable abdication of the State Water Board and its public trust responsibilities to these natural resources.

While we support many of the analyses and priorities in the draft staff Periodic Review report, we find little solace that the outcome will result in positive changes for beneficial uses, particularly the Public Trust fishery resources of the Bay-Delta. The State Water Board's consistent lack of water rights and water quality enforcement as well as its weak NPDES permitting requirements continues to ensure that the Board will utterly fail to remedy the problems of the Bay-Delta Estuary, with its preventable ecological death we fear is both inevitable and imminent.

The Governor's February 2009 Drought Proclamation makes a mockery of both the meaning of the word "drought" and efforts to protect beneficial uses and meet federal and state water quality requirements. Not only has CEQA been suspended for various legislatively unauthorized and environmentally illegal projects (namely, the Board's recent approval of the 2009 Drought Water Bank and the Central Valley Project/State Water Project Place of Use Consolidation), but also the very state law upon which this water quality planning effort is based has been suspended—Water Code Section 13247.

Furthermore, the Periodic Review outlined in the draft Staff Report recommends no action on two key issues with a strong federal nexus—fish screens on the Central Valley Project/State Water Project pumps and development of an implementation plan for the salmon doubling narrative. The screens are required in the CalFed Record of Decision, and authority for the Central Valley Project pumping plant screens is contained in the Central Valley Project Improvement Act (P.L. 102-575, Section 3406(B)(4)). The salmon doubling narrative in the 2006 Water Quality Control Plan Water Quality Control Plan is a federal mandate of Central Valley Project Improvement Act (Section 3406(b) (1), as well as State Law (Fish and Game Code Section 6902).

These issues are also brought up in the recent National Marine Fisheries Service's Final Biological Opinion on the Central Valley Project/State Water Project Operations Criteria and Plan (Salmon Biological Opinion), along with many other related issues discussed below.

#### Recommendations

Therefore, given the total failure of the 2006 Water Quality Control Plan to protect fisheries, and as discussed in the attached detailed comments, C-WIN and CSPA recommend that, there should be a complete revision of the 2006 Water Quality Control Plan, so that the State Water Board will:

- At a minimum, incorporate the Reasonable and Prudent Measures contained in the Salmon and Delta Smelt Biological Opinions. These represent the MINUMUM requirements for survival of the species. They do not provide for recovery of listed or non-listed species.
- Eliminate the Vernalis Adaptive Management Program and at a minimum, a return to the 1995/D-1641 San Joaquin River pulse flows. Examination of the recent Salmon Biological Opinion suggests that much higher flows are warranted for survival of listed species.

- 3. Evaluate how much water is necessary for Bay-Delta ecosystem health
- 4. Develop and implement fish screen criteria that results in installation of state-of-the art fish screens at the federal and state pumps—coupled with comprehensive monitoring to ensure the screens work to achieve the planned outcomes for fish protection.
- 5. Develop and adopt an implementation plan for the fish doubling narrative.
- 6. Conduct a hearing to rescind the waiver of the agricultural water quality standards, order the Central Valley Board to rescind the July 2006 waiver for agricultural discharges, and instead impose WDR's for all agricultural dischargers. As part of this proceeding, the State Water Board would reinstate the permanent standards, with responsibility borne by the federal and state projects by releasing water from reservoirs on the San Joaquin side of the Delta and by limiting pumping at the state and federal export projects.
- 7. Consideration and adoption of a land retirement program for drainage impaired agricultural lands in the two projects' areas of water use. C-WIN and CSPA continue to contend that irrigation of these saline seleniferous lands is a wasteful and unreasonable use of water in violation of Article X, Section 2 of the California Constitution.
- 8. Include water right investigation, enforcement and other activities in the Water Quality Control Plan monitoring program to ensure adequate river flows and water quality for fisheries.
- 9. Determine that there will be fish passage at Central Valley watershed rim dams.
- 10. Provide dedicated cold water storage in rim reservoirs to sustain suitable temperatures for salmon and delta fisheries per the recent National Marine Fisheries Service (NMFS)<sup>2</sup> and U.S. Fish and Wildlife Service Biological Opinions<sup>3</sup> on the Central Valley Project/State Water Project Operations Criteria and Plan.
- 11. Conduct an interim evidentiary hearing to investigate salt loading caused by delivery of Delta water to the San Joaquin Valley and impose terms and conditions in permits to control salt loading to the San Joaquin River and Delta.
- 12. Prevent redirected impacts to the Trinity River and other tributaries from Delta operations.
- 13. Conduct an interim evidentiary hearing to investigate increased exports and reverse flows in Old and Middle Rivers and consider terms and conditions in permits to protect the Delta ecosystem from the effects of the increased export of, so called, "surplus" water
- 14. Direct, as an immediate enforcement matter, the Department of Water Resources to halt all Delta diversions until such time as approval from the California Department of Fish and Game under the California Endangered Species Act is obtained.
- 15. Conduct an evidentiary hearing to receive evidence and recommendations from fishery and water agencies on how to minimize the impact of warm water discharges from rim dams on salmon and other affected species, including interim emergency measures.
- 16. Develop Selenium standards for acute and chronic fish and animal tissues addressing concerns about bioaccumulation raised in US Fish and Wildlife Service research<sup>4</sup> and REQUIRED by the Biological Opinion for the California Toxics Rule by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service.<sup>5</sup>

See http://www.fws.gov/sacramento/es/documents/State Water Project-CVP\_OPs\_BO\_12-15\_final\_OCR.pdf

<sup>&</sup>lt;sup>2</sup> See <a href="http://swr.nmfs.noaa.gov/ocap.htm">http://swr.nmfs.noaa.gov/ocap.htm</a>

<sup>&</sup>lt;sup>4</sup> Also see <a href="http://www.calsport.org/toxicityofSeleniumtoSalmonids-for.pdf">http://www.calsport.org/toxicityofSeleniumtoSalmonids-for.pdf</a>

<sup>&</sup>lt;sup>5</sup> U.S. Fish and Wildlife Service and National Marine Fisheries Service. Biological Opinion on Final Rule for the Promulgation of Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. March 24, 2000.

- 17. Develop a focus on water use efficiency, rather than water supply development, to both reduce demand and improve water quality.
- 18. Create a comprehensive monitoring program for the Bay-Delta

#### Conclusion

As noted, the draft staff Periodic Review report contains many good analyses and recommendations, some which address our recommendations above; yet some do not. C-WIN and CSPA believe that the State Water Board is complicit in a plan to increase exports from the Bay/Delta watershed, subverting its ecological health while appearing to investigate and modify the water rights of in-watershed users. In so doing, the State Water Board repeatedly contravenes basic rules of water law from upholding water right priorities to flow and quality regulation, to acceding to "emergency" suspension of its environmental planning authority. Watershed of Origin statutes and the corresponding first in time, first in right seniorities held by upstream water users are being reversed in favor of export water suppliers because of their tremendous political influence.

The State Water Board focus is narrow and technical- solely on process, rather than keeping its eye on water policy substance, at the expense of any water regulation and policy vision, and political relevance to the desires of the people of California for flowing rivers with healthful and productive ecosystems. Even the destructive CalFed process recognized at a minimum that the environmental damage caused by dams, diversions, and export uses played a significant role in the damage done to California's aquatic environment. The State Water Board seems to take only a drowsy interest in such things at present.

The State Water Board in this "periodic review" is again failing to rouse itself to use its ample legal authority to protect California's environment and economy and is again failing to enforce the California Constitution and statutes, including Article 10, Section 2. The State Water Board appears unwilling to investigate damage done by permit holders under applicable Water Code sections regarding water rights and water quality, and thus neglects its duties as the state water quality regulator under the federal Clean Water Act and the California Porter-Cologne Act. The State Water Board has an "affirmative duty" to regulate the conditions of water rights and water quality to prevent the destruction of the public trust.

We have little confidence that this Periodic Review of the 2006 Water Quality Control Plan will lead to widespread compliance with California water law and protection of beneficial uses. Unfortunately, this plan does not contain the requisite analysis or strategy to improve the California environment, nor convince permitted water diverters that the future of California water enforcement will be anything more than "business as usual." C-WIN and CSPA urge the State Water Board to vigorously enforce California water law for the protection of the environment as suggested above and discussed in detail in the attached comments.

We also note that the requirement to provide 15 copies of comments on a DRAFT Staff Report can only be construed as a deliberate effort to prevent or deter public participation. Even for enormous water rights hearings, only five copies are required. In an electronic age it is absurd to require hard copies of comments on a DRAFT staff report for a Triennial Basin Plan Review.

<sup>&</sup>lt;sup>6</sup> See National Audubon Society vs. Superior Court http://www.monobasinresearch.org/legal/83nassupct.html

Absent meaningful enforcement by the State Water Board, we are left with little recourse but to encourage the U.S. Environmental Protection Agency to rescind California's authority under the Clean Water Act for the Bay-Delta, and to promulgate and implement its own Bay-Delta Water Quality Control Plan and assure NPDES permitting authority for the State of California.

Respectfully submitted,

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### <u>DETAILED COMMENTS ON PERIODIC REVIEW OF 2009 WATER QUALITY CONTROL</u> <u>PLAN</u>

#### I. Background

It is the generally accepted view in the environmental and fishing communities, shared by C-WIN and CSPA, that the State Water Board has failed to properly carry out its constitutional and statutorily duties to both protect the public trust, and to prevent waste and unreasonable use of water in California. Over the course of many years, the State Water Board has chosen to act as a secondary player in the on-going saga of water supply and environmental problems in the State. As noted by the Governor's Delta Vision Task Force, the State Water Board "enforces its own laws and regulations poorly or not at all."

As will be clear by our specific comments contained herein, our experience before the State Water Board is that the Board's continued failures to properly enforce the Water Code and environmental laws is directly responsible for the present pelagic organism crash and that it is mostly responsible for the looming failure of the California water supply system.

We agree with these words of the Delta Vision task force:

"With respect to the water system, California already possesses a strong constitutional and statutory foundation for carrying out the recommendations of the [Governor's Delta] Vision. Yet key agencies and institutions too often lack consistent political support for certain missions, or are simply under-funded. As a result, the existing water governance structure enforces its own laws and regulations incompletely, unevenly, and on the basis of insufficient information.

Measurement, reporting, and enforcement capabilities are all inadequate. In a state where the "reasonable use" of water is mandated by the Constitution itself, this is an unacceptable state of affairs."

Delta Vision Strategic Plan draft p. 13, lines 20-27.

In an attempt to help remedy these long-standing failures, in March of 2008, C-WIN and CSPA filed a complaint with the State Water Board's complaint division to provide sufficient information to cause the State Water Board to investigate the State Water Project and the federal Central Valley Project for public trust and unreasonable use and unreasonable methods of diversion violations at their respective diversion facilities in the Delta. While we have dropped our litigation on that complaint, our concerns remain and we will use every opportunity available to point out the failures of the State Water Board regarding wasteful and unreasonable use and method of diversion by the Central Valley Project and State Water Project. We reiterate our request for such a hearing in this letter.

Again, as the Governor's Delta Vision Task Force makes clear:

"With respect to the ecosystem, enforcement of laws and regulations is driven more by court decisions than by any comprehensive long-range plans for ecosystem recovery. This introduces great uncertainty into water management and ecosystem management alike. It also tends to force environmental management agencies into a reactive posture focused on legal compliance rather than on proactive restoration of a

badly degraded ecosystem"

Delta Vision Strategic Plan Draft, p.13, lines 29-34.

This strongly suggests that California's current water regulation regime resembles the condition the state faced by 1913, when its water bodies were plagued by wide-spread lawsuits in the absence of a coherent system of water regulation. Since 1914, we have had a Water Code, and since the late 1940s there has been some form of water pollution control regulation; yet here we are.

Our skepticism comes from problems that are already well established: the State Water Board organization's clear administrative problems, the fragmented nature of regulatory oversight affecting water resources in general in the State, the lack of qualified State Water Board staff, and the lack of resources from the Governor and other state officials in charge of budgets- and now additional staffing cuts due to the State budget deficit. What the proposed Periodic Review of the 2006 Water Quality Control Plan will not do is solve any of California's well-documented water problems; it simply proposes various slow responses while accepting a largely failed regulatory framework dating back to the Bay-Delta Accord of 1994. We now believe the failure of the Accord and CalFed is obvious in the record of the Pelagic Organisms Decline and the commercial salmonid fishery closures of 2008 and 2009. The Board's torpor on this obvious situation testifies to its apparent indifference to California's water and ecological problems.

#### II. C-WIN and CSPA's General Comments On The Staff Report for Periodic Review of the 2006 Water Quality Control Plan.

The proposed Periodic Review in the Staff Report describes a suite of activities the State Water Board will undertake over the next three years to amend the Water Quality Control Plan better to protect beneficial uses of water, as required by the federal Clean Water Act (Section 303(c) (33 U.S.C., § 1313(c)) and the California Water Code (Section 13240).

Unfortunately, the proposed Periodic Review and the board's continued dismal performance (such as continued lack of enforcement against the Bureau of Reclamation and the California Department of Water Resources for violation Cease and Desist Orders No. 262.31-16 and 262.31-17 of Delta salinity standards contained in the Water Quality Control Plan) evidences little appreciation or understanding of the gravity or nature of the accelerating disintegration of the Delta's ecosystem and is essentially a justification for the status quo. It implies or promises progress where little exists, ignoring reasonable interim actions that would ensure collection and development of information critical to the success of any long-term programs, let alone ensure protection from clear and present dangers to Delta ecosystems.

The State Water Board seems to have largely decided on a business-as-usual approach while waiting for the Bay-Delta Conservation Plan (BDCP) and Delta Vision processes to be finalized. It is likely to be a long wait. BDCP represents the most complicated and ambitious habitat conservation plan ever envisioned in the nation coupled with a massive scheme to hydrologically modify the core of California's water circulation system. BDCP's anticipated time schedule is absurdly optimistic and the unprecedented effort will almost certainly be substantially delayed, if it survives at all. California's fisheries may not survive in the interim. Moreover, the Bay Delta Conservation Plan is premised on a balancing of economic with ecological concerns, and is thus a demotion of ecological protection in light of the substantive authorities the State Water Board has available to it to enforce in its jurisdiction. The State

Water Board waiting for the Bay Delta Conservation Plan proceeding's outcomes is akin to the Board proceeding with a hand tied behind its back and one eye covered. The Bay Delta Conservation Plan in this light resembles more a calculated effort to design effective extirpation of vulnerable Delta ecosystems and listed species, likely outcomes of the co-equal position, as compared with analyses by the Public Policy Institute of California's team in their July 2008 report on *Comparing Futures for the Sacramento-San Joaquin Delta*. There, the coequal position of economic and ecological concerns in the Delta led clearly to a substantially reduced likelihood of long-term survival by vulnerable fish species. The State Water Board must not remain a conscientious objector to actions necessary to ensure the survival of species already languishing on the brink of extinction.

The proposed Periodic Review for the Water Quality Control Plan ignores crucially needed emergency measures to address the current crisis in Delta fisheries. It is silent on each of the following questions:

#### 1. How much water does the Delta really need?

There is no effort outlined in the Periodic Review or contemplated in parallel proceedings (Delta Vision, BDCP, SDIP, etc.) to determine how much water the Delta requires to maintain a stable ecosystem or how various levels of reduced exports would affect south-of-Delta water users. Indeed, the Department of Water Resources (DWR) and the U.S. Bureau of Reclamation (Bureau) have strenuously resisted calls by resource agencies and the environmental and fishing community to determine how much water the Delta needs before embarking on projects to increase water exports.

The State Water Board should schedule an interim evidentiary hearing to collect evidence on how much water is required to maintain the Delta ecosystem and what impacts potential reductions on exports would have on water users. If such information is unavailable, the State Water Board should order Department of Water Resources and the Bureau to undertake such studies in a timely manner as a condition of their permits. C-WIN and CSPA believe that the evidence submitted for the hearings on D-1630 (draft order) and its predecessor, the October 1988 Draft Water Quality Control Plan for the San Francisco Bay/ Sacramento-San Joaquin Delta Estuary<sup>7</sup> would provide ample information on the water needs for a healthy Delta.

#### 2. How Will the Board Create and Manage a Comprehensive Delta Monitoring Plan?

With the exception of salt and mercury, there is a paucity of reliable information on the concentration, fate and transport of contaminants in the Delta, despite the fact that many of these pollutants are highly toxic and bioaccumulate in fish and wildlife. These pollutants also pose a threat to human health. Water quality has been identified by the POD workgroup as one of the three likely causes of the decline of pelagic species. An understanding of the fate and transport of these pollutants is critical to both the restoration of fisheries and any future projects that contemplate a modification of the hydrologic regime. Historical environmental analyses have focused almost exclusively on salt and several drinking water contaminants. The present lack of information on the array of toxic contaminates present in the Delta precludes any legally defensible environmental analysis of future projects. CSPA has long urged both the State and Central Valley Boards to establish a comprehensive Delta-wide monitoring program similar to

<sup>&</sup>lt;sup>7</sup> See <a href="http://www.fishcalendar.net/cac/SWRCBs">http://www.fishcalendar.net/cac/SWRCBs</a> 1988 draft Bay-Delta water quality plan.pdf

those conducted by the San Francisco Estuary Institute in San Francisco Bay and the Sacramento River Watershed Program in the Sacramento River, and should strive to integrate the Delta program with its up- and downstream cousins to help establish the tracking needed to assess fate and transport issues.

The State Water Board should schedule an interim evidentiary hearing to collect evidence and recommendations on the scope of an adequate contaminant monitoring program for the Delta. The Department of Water Resources, Bureau and other beneficiaries of Delta exports should be directed to timely establish the Delta monitoring program, as a condition of their permits.

### 3. When Will Necessary State-Of-The-Art Fish Screens Be Required On Delta Export Pumps?

Screening of agricultural diversions on Delta tributaries accomplishes little if the Banks and Jones pumping plants subsequently destroy fish bypassing agricultural screens. New fish screens at the export pumps would drastically reduce entrainment of virtually all of the pelagic and salmonid listed pursuant to state and federal endangered species acts. New state-of-the-art fish screens were required mitigation measures in the CalFed Record of Decision. Evaluation of the success of the installed new fish screens was to occur before further consideration of a peripheral canal. The new screens at the Contra Costa intake have only recorded the entrainment of a single Delta smelt since they were constructed (much different than the 26,000 Delta smelt killed by the project pumps between June 1 and June 24 of 2007). The screening project was mothballed after MWD and the State Water Contractors, the beneficiaries of the State Water Project and Central Valley Project, stated that they would not pay for them. The first units of the new screens would have been in place today had the water contractors not refused to pay for them. Had they been in front of Clifton Court Forebay, which would have eliminated most of the current predation occurring in the Forebay (Forebay predation is the largest cause of mortality for most species "taken" by the pumps), and significantly improved salvage and survivability of many other species presently in precipitous decline, including salmon, steelhead, splittail, threadfin, American shad, longfin, striped bass, etc.

The required state-of-the-art screen project also encompassed improved new salvage facilities, transportation methods and improved release methods and new release areas. The new screens would have significantly reduced the approach velocity of water and new screen openings would have been reduced from the present one-inch to a couple of millimeters (thereby preventing most smelt from going down the DMC to Los Angeles).

A component of the new screen project would have been an accelerated and intensified effort in improving survivability of smelt. Indeed, survival rates of salvaged Delta smelt are improving. Recent results from Pit-tag (passive integrated transponder tags) monitoring show that approximately 33.3 percent of Delta smelt salvaged survives collection, transport and release back into the Delta (14 percent at the Central Valley Project). Unfortunately, most smelt that reach the present screens pass through them and are never diverted to the salvage buckets.

As previously noted, under CalFed an evaluation of the success of the installed new fish screens was to occur before further consideration of a peripheral canal. Clearly, it cannot be claimed that money is an obstacle to construction of new screens, considering the estimated costs of proposed new reservoirs and a peripheral canal. The State Water Board should mandate the timely installation of state-of-the-art fish screens as mandated by the CalFed

Record of Decision as a condition of water exports out of the Bay-Delta estuary, and the Water Quality Control Plan should include this element under issues recommended for further review.

### 4. What New Conditions On Export Pumping Will Be Implemented In Light Of Increased Water Exports And Resulting Reverse Flows To Protect The Bay/Delta Ecosystem?

The average of State Water Project and Central Valley Project exports in the 1970s were 1.430 MAF and 2.141 MAF, respectively. Exports in the 1980s averaged 2.425 MAF (State Water Project) and 2.519 MAF (Central Valley Project). During the 1990s, average exports were 2.305 MAF (State Water Project) and 2.219 MAF (Central Valley Project). Exports dramatically increased between 2000 and 2007 to an annual average of 3.251 State Water Project and 2.590 MAF (Central Valley Project).

Additionally, average annual exports to Contra Costa Water District and the North Bay Aqueduct significantly increased from 90 TAF and 0 TAF, respectively, in the 1970s to 121 TAF and 49 TAF in the 2000s. In other words, total average annual exports from the South Delta increased from 3.662 MAF during the decade following approval of the subject water rights to an annual average of approximately 6.008 MAF between 2000 and 2007.

The dramatic increase in the level of exports, beginning in 2003 coincided with the crash in pelagic species populations. For example, exports in 2003, 2004, 2005, 2006 and 2007 were 6.323 MAF, 6.145 MAF, 6.470 MAF, 6.315 MAF and 5.806 MAF, respectively. More recently, in water year 2008 during a second year of low unimpaired flows and regulatory and judicial intervention into the Pelagic Organism Decline, Delta exports slowed to 3.741 MAF.

The availability of water for these increased exports apparently came from "surplus" water made "available" by the Monterey Agreement, signed by DWR and contractor parties in 1994; resulting amendments took effect over a number of years but were mostly executed by 1999. The Third District Appellate Court ruled the Monterey EIR invalid in 2000. When the State Water Board issued D-1641, it could not have been aware that exports would dramatically increase in the ensuing years and could not have anticipated the environmental consequences resulting from the significant increase in exports.

The State Water Board should conduct an interim evidentiary hearing to investigate increased exports and reverse flows in Old and Middle Rivers and consider terms and conditions in permits to protect the Delta ecosystem from the effects of the increased export of, so called, "surplus" water.

#### 5. Addressing Current Salt Loading to the San Joaquin River and Delta

Delta salinity standards continue to be violated with impunity. Both the 1995 Water Quality Control Plan for the Delta and D-1641 directed the Central Valley Board to move the salt compliance point upstream of Vernalis. Fourteen years later, the Central Valley Board has still not released the proposed upstream salinity objectives.

The State Water Board assigned Department of Water Resources and the Bureau the responsibility for meeting salinity objectives in the 1979 Delta Plan, D-1485 and the 1995 Delta Plan and D-1641. Salinity standards continue to be routinely violated. The San Joaquin River Salinity and Boron TMDL assigns responsibility for controlling salt delivered to the San Joaquin Valley from the Delta to the Bureau. The Bureau's salt load reductions are to be addressed

through a joint Management Agency Agreement with the Central Valley Board. Unfortunately, despite signing the Management Agency Agreement, the Bureau is still claiming sovereign immunity (despite a specific waiver of sovereign immunity in Central Valley Project Improvement Act (P.L.102-575) Section 3406(b)) and, while promising some level of cooperation, refuses to accept specific enforceable load limits that will actually lead to reductions in salt loading to the San Joaquin River. The State Water Board had indicated in D-1641 that source control is the preferred method of addressing Southern Delta salinity, yet the Board's actions do not correspond with this. Instead, the State Water Board seems truly dedicated to avoiding source control.

To resolve this impasse, the State Water Board should conduct an interim evidentiary hearing to investigate salt loading caused by delivery of Delta water to the San Joaquin Valley and implement terms and conditions in permits to control salt loading to the San Joaquin River and Delta. This will resolve any question of whether the Regional Board has the authority to issue WDRs or require the Bureau to commit to specific reductions in salt loading. Meaningful reductions in salt loading of the San Joaquin River will also lead to a reduction in the use of New Melones water to meet the Vernalis objective, thereby freeing up clean Stanislaus River water for beneficial uses, not the dilution of pollution.

### 6. When Will Water Storage Levels Be Increased to Protect River Flows and Temperatures for Fish Protection in the Likely Event of Dry Water Years in the Future?

Water storage in Shasta and Oroville were recently at historic lows and would be much lower if not for late season storms. While storage levels in 2009 have recovered somewhat, the principle cause of this earlier shortfall is the cannibalization of north-of-Delta storage over the last several years to provide unrealistic water allocations during 2 years of drought and to supply south-of-Delta storage in Semi-Tropic and Kern water banks and Diamond Valley Reservoir. The State Water Board and the Department of Water Resources should require these facility owners to report their storage levels using real-time methods for uploading online, so that more realistic and honest appraisals of the state's water supply picture can occur as the Department and the U.S. Bureau of Reclamation develop their allocation forecasts each year. Unless the approaching water year proves to be extremely wet, next years' instream flows on the Feather, Sacramento and Yuba rivers are likely to approach record lows with accompanying high water temperatures. The Trinity River can also expect high water temperatures in the event of another dry year. These low flows and high temperatures will likely cause and contribute to increased pre-spawn mortality and reductions in spawning and rearing habitat, temperatures lethal to salmonid eggs and larvae and increases in pollutant concentration. Given the dramatic crash of pelagic species and the recent acceleration in the long-term decline in salmonid escapement, these expected low flows with poor water quality and low temperatures could trigger a catastrophic disaster to fisheries already hovering on the edge of extinction.

The State Water Board should immediately schedule an evidentiary hearing to receive evidence and recommendations from fishery and water agencies and the general public on possible interim emergency measures that may be implemented to reduce or mitigate this potential disaster to already depressed fisheries.

#### 7. When will the Department of Water Resources obtain CESA Clearance for its Delta Pumps?

Department of Water Resources continues to operate the State Water Project pumps without appropriate clearance from the Department of Fish and Game under the California Endangered Species Act (Fish and Game Code Section 2081 et seq). As determined by Judge Frank Roesch in Alameda County Superior Court, the Department of Water Resources has no CESA approvals to "take" Delta smelt. The State Water Board should condition continued Delta exports upon receipt of a "2081" permit from CDFG. The Board missed an opportunity to do so when it issue Order WR 2009-0033 in late May 2009 amending Department and Bureau permits to consolidate the places of use of water in their projects.

#### III. Survey of Failed State and Regional Board Programs

The State Water Board's 2006 Water Quality Control Plan for the Bay-Delta is a case history of how and why the Delta's ecosystem is imploding. Beyond the big questions we pose in the previous section, there are numerous problems, gaps and leadership failures in State and Regional Water Board programs that bear on the Periodic Review of the 2006 Bay-Delta Water Quality Control Plan. For example:

#### 1. Water Quality and Contaminant Control

The State Water Board pays lip service to the control of the largest sources of water quality impairment and controllable pollutant loading into the Delta and its tributaries. While recent information (including research reviewed in the draft Periodic Review staff report) has, perhaps, refined our understanding of these issues, the causes and sources of these problems and the actions necessary to reduce or eliminate them have been known for decades. The State and Regional Water Boards identified salt and selenium impairment of the San Joaquin River and Delta, organophosphorus (OP) pesticides in the Sacramento and San Joaquin Rivers and Delta, low dissolved oxygen in the Stockton Ship Channel, agricultural pollution and the problems of municipal wastewater and stormwater discharges many, many years ago. The sources and actions necessary to address and eliminate them have also been long known. The statutory authority and regulatory tools to address them have existed since the 1970s.

Unfortunately, what has been absent is the political will to meaningfully attack these problems. The State Water Board continually avoids opening its own regulatory toolbox, minimizing long-overdue regulatory enforcement and focusing instead on historically ineffective stakeholder and voluntary processes. This continues a long-standing State and Regional Waterboard policy of denial and delay. The Periodic Review now before the Board essentially foreshadows business-as-usual. The refusal to control pollution at its sources (including "nonpoint" sources as they occur in the drainage problem lands of the San Joaquin Valley) undermines any claims that the State Water Board has a serious commitment to protect and restore the Delta.

Meanwhile, the Delta and its tributary waters continue to receive increasing loads of an array of pollutants, many already identified as "impairing" beneficial uses. Indeed, the Central Valley Regional Board now proposes a 303(d) delisting of a portion of the San Joaquin River and Salt Slough for selenium. Selenium concentrations are below the current standard of 5 ppb, but U.S. Fish and Wildlife Service and National Marine Fisheries Service have identified that 2 ppb of Selenium would be required to protect endangered fish and wildlife.<sup>8</sup>

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<sup>&</sup>lt;sup>8</sup> U.S. Fish and Wildlife Service and National Marine Fisheries Service. Biological Opinion on Final Rule for the Promulgation of Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. March 24, 2000.

Additionally, the Central Valley Board is proposing a 303(d) delisting of the San Joaquin River below Vernalis for electrical conductivity (salinity), even though examination of USGS recording stations show ongoing violations of the electrical conductivity standard.

a. **NPDES Program.** The State Water Board continues in denial and silence about failures of the NPDES permitting program controlling discharge of almost two billion gallons per day into the Delta watershed (1.2 BGD in the actual Delta) from some 64 municipal wastewater treatment plants and 62 industrial dischargers. The Central Valley Board is allowing flow limits and, in many cases, the mass loading of pollutants to be increased in many, if not a majority, of permit renewals (every five years). Frequently, these renewed permits allow for increases in loading of pollutants identified as actually "impairing" a water body. This travesty, if allowed to continue, will only worsen as the Delta region urbanizes further.

**State and federal antidegradation requirements are routinely ignored.** For example, over the last three years, the Central Valley Board has allowed increased discharge of impairing pollutants into the Delta from Stockton, Manteca, Tracy and Lodi, among others. Indeed, they even issued a new permit to the new city of Mountain House to discharge impairing pollutants into Old River, one of the most degraded areas of the Delta.

The State Water Board continually fails to acknowledge or discuss the failure of the municipal stormwater programs to reduce mass loading of toxic and impairing pollutants. Not a single municipality discharging stormwater pollutants into the Delta or its tributaries can document or quantify any reductions in the mass loading of pollutants over the last twenty years. Neither has the Central Valley Board incorporated enforceable TMDL waste load allocations developed in TMDLs in recently issued MS-4 permits.

b. Irrigated Lands Program. Agricultural dischargers are the largest source of pollution to Central Valley waterways. The Periodic Review fails to acknowledge or discuss the failure of the Irrigated Lands Program to reduce the mass loading of toxic and impairing pollutants. The Irrigated Lands Program is implemented through waivers of Waste Discharge Requirements (WDRs). The Irrigated Lands Program is, perhaps, the single most graphic example of the failure of the State and Central Valley Boards to protect water quality.

Monitoring data collected by the Central Valley Board, University of California at Davis researchers, and agricultural coalitions, among others, establishes that discharges from irrigated lands represent the largest source of toxic and other pollutants to Central Valley waters. In 2007, The Central Valley Board released a landmark draft report presenting the first region-wide assessment of data collected pursuant to the Irrigated Lands Program since its inception in 2003. Data collected from some 313 sites throughout the Central Valley reveals that: 1) toxicity to aquatic life was present at 63 percent of the monitored sites (50 percent were toxic to more than one species), 2) pesticide water quality standards were exceeded at 54 percent of sites (many for multiple pesticides), 3) one or more metals violated criteria at 66% of the sites, 4) human health standards for bacteria were violated at 87 percent of monitored sites and 5) more than 80% of the locations reported exceedances of general parameters (dissolved oxygen, pH, salt, TSS). While the adequacy of monitoring (i.e., frequency and comprehensiveness of monitoring) varied dramatically from site to site, the report presents a dramatic panorama of the epidemic of pollution caused by the uncontrolled discharge of agricultural wastes.

Since conditional waivers were originally adopted in 1982, and subsequently in 2003/4 and 2006, the Central Valley Board has been unable to identify a single improvement in water quality or, indeed, a single pound reduction in the mass loading of agricultural pollutants that has been achieved by the Program (other than a reduction in application of organophosphorus pesticides as farmers switched to more potent and less expensive pyrethroids).

Under the agricultural waivers, the Central Valley Board does not know:

- who is actually discharging pollutants,
- > the points of discharge,
- the quantities or concentrations of discharged pollutants,
- the actual impacts of those discharges on local receiving waters,
- whether any management measures (e.g., best management practices) have been applied,
- Or whether applied best management practices are effective.

The monitoring programs established by agricultural coalitions are grossly deficient and incapable of identifying "bad actor" dischargers. Unfortunately, since the Central Valley Board does not know the actual identities of dischargers or the quantities or concentration of discharged pollutants, it must depend upon the goodwill of agricultural coalitions over which it has no enforcement powers other than the appropriate but now politically difficult step of revoking a waiver covering thousands of farms spread over millions of acres (Note: Cleanup & Abatement Orders, Cease & Desist Orders and Notices of Violation can only be issued to actual dischargers).

It should be noted that the waivers essentially ignore the required elements of the state's Nonpoint Source Control Program. These mandated requirements include: 1) a description of best management practices, the process used to select or develop best management practices and the process used to ensure and verify best management practice implementation; 2) specific implementation time schedules and quantifiable milestones to measure progress; 3) sufficient feedback mechanisms to ensure proper evaluation and determine whether additional best management practices are required and; 4) specific consequences for failure to achieve goals.

CSPA and San Francisco Baykeeper appealed the Central Valley Board's July 2006 adoption of agricultural waivers to the State Water Board. State Water Board technical staff reviewed the appeal and, in a series of draft reports concluded that: 1) discharges from irrigated agricultural lands have violated water quality standards; 2) agricultural coalitions have failed to comply with conditions of the waiver; 3) the Central Valley Board cannot or will not enforce fundamental waiver conditions; 4) the monitoring and reporting program is deficient; 5) the waivers lack specific time schedules for key elements of the program; 6) waiver conditions do not ensure pollution reductions by individual farms; 7) the size of coalitions is unmanageable and should be limited to subwatersheds; 8) the waiver should address groundwater protection; 9) the waiver is not consistent with the state's nonpoint source policy and; 10) the waiver should be remanded back to the Regional Board for recommended amendments.

However, in an astonishing disregard of the public trust and water quality, senior board management informed staff that they didn't want the waivers remanded and directed staff to prepare a final report upholding the waivers. CSPA and Baykeeper subsequently filed a lawsuit that is pending.

The State Water Board should order the Central Valley Board to rescind the July 2006 waiver for agricultural discharges and instead impose WDR's for all agricultural dischargers, perhaps even *before* a judge orders them to.

c. Lack of staff resources. The draft staff Periodic Review report fails to discuss or acknowledge the fact that the state has deprived the Central Valley Board of sufficient resources to carry out their statutory responsibilities to control discharges of toxic and other pollutants into the state's waters. We provided the information below to you last year, and to the best of our knowledge, we're unaware of conditions having meaningfully improved since that time.

The Executive Officer of the Central Valley Board, Ms. Pamela Creedon, acknowledged in a August 2007 presentation to the State Water Board title *State of the Central Valley Region* that the Board has only: a) 12 percent of the staff minimally necessary to regulate stormwater discharges (NPDES), b) 37 percent of those necessary to control municipal wastewater discharges (NPDES), c) 26 percent of those necessary to issue WDRs and d) 16 percent of those required to regulate dairies, e) 22 percent of the staff crucial to enforcing conditions of the controversial agricultural waivers, and f) only 11 of the 38 people necessary for the basin planning unit to update the Basin Plans that are fundamental to all Board actions. The Board's surface water ambient monitoring program has only 2 person-years (PYs), its enforcement unit is assigned only 3.5 PYs, the water quality certification unit has only 2.6 PYs to process more than 400 certifications annually.

Further, the underground storage tanks unit has only 17 of 41 staff needed for several thousand cases, the timber harvest unit has only 9.2 PYs to regulate and monitor discharges from thousands of timber projects covering 45 percent of the state's harvested timber and the Title 27 unit has only 40 percent of those needed to regulate leaking landfills and surface impoundments. And finally, the Board has only 16 PYs to develop, implement and monitor TMDLs covering over 300 waterbody/pollutant combinations identified as "impaired" throughout the Central Valley.

Given these serious staffing shortages, the Water Boards cannot claim to be serious about controlling the pervasive degradation of the Delta caused by increasing loads of a vast array of pollutants. Especially, as they have embraced more intractable stakeholder or voluntary programs throughout the Strategic Periodic Review. Stakeholder-driven voluntary programs require far more staff resources and considerably longer timeframes than direct regulatory permit issuance and enforcement. The history of water quality regulation in the Central Valley is littered with failed stakeholder programs. The plain fact is that neither the State nor Regional Board can identify a successful stakeholder process that has documented quantifiable reductions in pollutant loading and improvements in water quality. However, the Boards can point to regulatory successes that do result in documented quantifiable reductions in pollution (for example, Grassland WDRs and the Rice Herbicide Prohibition).

d. **Total Daily Maximum Loads (TMDLs).** The factual history of TMDL development and implementation in the Central Valley undermines the claims and goals for the 2006 Water Quality Control Plan. The State Water Board's descriptions of the goals and implementation of TMDLs resemble fiction more than fact. Adopted TMDL implementation plans rarely have enforceable load and waste load allocations. Indeed, the State and Central Valley Board have frequently employed TMDLs as "rabbit holes" in an effort to avoid the political repercussions that would likely accompany prompt direct action.

An example of such a "rabbit hole" is the Board's refusal to comply with the explicit requirements of the Bay Protection and Toxic Cleanup Program. In 1989, the California Legislature mandated a program requiring the State and Regional Boards to identify and clean up toxic hot spots (Water Code §§ 13390 et seq.). Ten years later, in 1999, the State Water Board belatedly identified the Delta as a toxic hot spot for mercury, low dissolved oxygen in the Stockton Ship Channel and pesticides from agricultural return flows and dormant spray runoff. The Sacramento and San Joaquin Rivers were identified as Toxic Hot Spots because of pesticides in agricultural return flows and dormant spray runoff. Stockton and Sacramento urban waterways were identified as Toxic Hot Spots because of pesticide runoff and low dissolved oxygen.

The Central Valley Board was granted variances for the pesticide cleanup plans. Following a successful lawsuit by Bill Jennings and Deltakeeper, revised pesticide cleanup plans were adopted in 2003. However, rather than comply with specific mandates to, within one year, reevaluate and revise WDRs of dischargers identified as causing or contributing to Toxic Hot Spots in order to prevent or eliminate these hot spots (Water Code § 13395), the Water Boards elected to implement the program through TMDLs. Little has changed in the ten years following adoption of the cleanup program; i.e., Toxic Hot Spots continue to plague the Delta and its tributaries.

Despite adopting TMDLs for selenium and boron, the State Water Board refuses to look realistically at land retirement and the issue of wasteful and unreasonable use related to irrigation of drainage problem lands in the western San Joaquin Valley. A graphic example is implementation of the San Joaquin River's Selenium TMDL. Despite a 2009 deadline for compliance with 5 ppm selenium (4 day average) standard for the Grasslands Bypass Project discharges into Mud Slough and the San Joaquin River, it appears that the State Water Board and Central Valley Board are more than willing to grant a 10-year delay through an upcoming Region 5 Basin Plan Amendment.

The additional 10-year waiver of the 5 ppb/4 day average selenium standard in the TMDL is proposed because neither technology nor funding is available to treat the toxic contamination created by irrigation of saline, seleniferous lands. Currently, discharges from the Grasslands Bypass Project (GBP) contain a monthly average discharge of 54 ppm of selenium. It also contains high levels of salt, boron and mercury. The GBP Draft EIS/EIR did not contain any alternative examining land retirement, as well as requirements for mandatory inclusion for all landowners within the GBP. The State Water Board and Regional Board refuse to examine the root cause of the drainage problems—applying good water to bad land. Now that Proposition 50 funding for the GBP's treatment (reverse osmosis) plant is not forthcoming due to the State budget, there is no justification for further leniency in implementing the TMDL other than to maintain the status quo. Land retirement remains the most feasible option here.

Numerous government studies identify the high economic and environmental cost of continuing to irrigate these lands, and that the only reliable solution to reverse the drainage problem is to halt irrigation of these lands. The National Economic Development analysis for the San Luis Drainage Feature Re-Evaluation found the alternative with the least amount of land retirement (In-Valley Groundwater Quality Land Retirement) had a negative benefit/cost summary amounting to \$15.603 million/year in 2050 dollars, or a negative \$780.15 million over the 50 year life of the project. Conversely, the alternative with the greatest amount of land retirement

(In Valley Drainage Impaired Land Retirement) had a positive benefit/cost summary of \$3.643 million/year in 2050 dollars, or a positive \$182.15 million over the 50 year life of the project.<sup>9</sup>

The U.S. Geological Survey<sup>10</sup> has been clear that any solution to drainage problems must include land retirement. In relation to the San Luis Feature Re-Evaluation and subsequent settlement negotiations convened by Senator Feinstein, the USGS has stated that

"Land retirement is a key strategy to reduce drainage because it can effectively reduce drainage to zero if all drainage-impaired lands are retired."

#### USGS also stated that

"The treatment sequence of reverse osmosis, selenium biotreatment and enhanced solar evaporation is unprecedented and untested at the scale needed to meet plan requirements."

The State Water Board implies that TMDLs will achieve compliance with Basin Plan water quality standards. While the "technical TMDLs" adopted by the Water Boards are scientifically defensible, the crucial implementation plans are sadly lacking. To date, there have been no documented and quantified reductions in pollutant loading attributable to TMDL implementation. The only identified reductions in the mass loading of any impairing pollutant has only come about as a result of growers shifting from organophosphate (OP) pesticides to more potent and less expensive alternatives like the pyrethroids.

Unfortunately, there is no comprehensive monitoring program for pyrethroids comparable to the major monitoring effort launched by the Regional Board to identify the fate and transport of OP pesticides that began in the late 1980s and continued through the 1990s. Pyrethroid toxicity has become pervasive throughout the Central Valley but a Pyrethroid TMDL remains elusive.

The State Water Board creates the misimpression that effective, enforceable TMDL loading allocations are being incorporated into NPDES permits. The reality is that the Regional Board has failed to include TMDL wasteload allocations in a number of adopted and renewed NPDES wastewater permits. These include, Stockton, Manteca, Modesto, Tracy, Lodi and Mountain House for discharges directly into the Delta, as well as numerous permits for municipalities discharging into tributaries of the Delta. Nor has the Regional Board incorporated enforceable wasteload allocations in adopted MS-4 permits regulating urban stormwater discharges. While wasteload allocations in MS-4 permits are implemented through management measures, EPA regulations require they must still be achievable and enforceable.

The Central Valley Board has chosen to implement TMDL load allocations to agricultural dischargers through waivers of WDRs in the Irrigated Lands Program. The blatant failures of the Irrigated Lands Program are discussed above. Five years after adoption of the 2003 waiver, the Board cannot demonstrate that a single pound of pollutant loading has resulted from the program. Specific TMDL load allocations, incorporating the specific control elements of the state's Nonpoint Source Control Program, have yet to be assigned to the agricultural coalitions.

<sup>&</sup>lt;sup>9</sup> See <a href="http://www.usbr.gov/mp/nepa/documentShow.cfm?Doc\_ID=2240">http://www.usbr.gov/mp/nepa/documentShow.cfm?Doc\_ID=2240</a>. Page N-17

<sup>&</sup>lt;sup>10</sup> See **U. S. Geological Survey Open File Report 2008-1210**, p1 Executive Summary http://pubs.usgs.gov/of/2008/1210/

The draft Staff report seriously mischaracterizes the San Joaquin River Salinity and boron TMDL. The SJR Salt TMDL is a poster child for the failures of the TMDL program to secure improvements in water quality. Salinity problems on the river have been recognized for over a century. The long-delayed salt TMDL is the first 100-foot TMDL in the nation's history, only protecting a short stretch of river below the San Joaquin's confluence with the Stanislaus River. Water quality violations continue to occur upstream of the confluence and downstream below Vernalis: this despite the fact that EPA regulations and the Central Valley Board's Basin Plan require that standards must apply throughout a waterbody, not simply at a single compliance point.

While TMDL implementation plans must ensure attainment of water quality standards, the salt TMDL contemplates a 19 percent exceedance of standards in critical years and a 7 percent exceedance in dry years. The TMDL fails to reserve any assimilative capacity, thus depriving downstream farmers of the ability to irrigate and discharge return flows. Although the State Water Board has expressly directed the Central Valley Board to control salt loading from municipal and industrial dischargers, the Board routinely allows massive increases in salt loading in recently adopted NPDES permits. An example of the Central Valley Board's inability to meaningfully address salt is the City of Modesto's NPDES wastewater permit renewal issued in April 2008. The permit does not require compliance with final salt limits until July 2022 or July 2026. The SJR TMDL assigns load allocations to agricultural coalitions operating under the irrigated lands waiver but fails to incorporate the control elements of the Nonpoint Source Control Program, thus ensuring failure.

The San Joaquin River Dissolved Oxygen TMDL is yet another poster child for the failures of the Central Valley Board's TMDL program. The causes and solutions to the chronic oxygen deficits in the Stockton Ship Channel have been known since, at least, the 1970s. Following the Central Valley Board's refusal to comply with the explicit requirements contained in the Bay Protection and Toxic Cleanup Program, the Board embarked on a convoluted process to develop a TMDL. Over a span of five years the process entailed:

- 1) more than ten updates, workshops or hearings by the Central Valley Board;
- 2) four draft plans circulated for comment,
- 3) a four-year stakeholder process involving more than 150 meetings of the steering and technical committees and
- 4) millions of dollars in special studies.

Since then, no meaningful actions have been taken to address the causes of the oxygen deficit, other than a state financed project to construct a demonstration aeration experiment at the Port of Stockton.

The Central Valley Board's Mercury TMDL is under development. While the technical work has been superb, there is major disagreement over the actual water quality objective and implementation plan. The outcome remains problematic. As presently proposed, the objective is not protective of subsistence fishermen and their families, those with impaired immune systems, pregnant women or children. Most dischargers are strenuously lobbying for loopholes, i.e., "offsets" to avoid having to implement source control or treatment measures. A number of local agencies and the Department of Water Resources are opposing the TMDL because it may regulate wetlands, which have been found to methylate Mercury (the most physiologically absorbable form of mercury). In fact, Department of Water Resources, in a strongly worded letter, claims "The proposed BPA and implementation plan could seriously curtail agencies"

ability to help with the recovery of endemic and specially protected species by limiting projects that could restore wetland habitat and provide seasonal food sources for such species."

Apparently, the possibility that species inhabiting such habitat might bioaccumulate mercury and pose a threat to both protected species and human health is of little concern to the state and regional water boards. Given increasing opposition, it is uncertain whether the proposed Mercury TMDL will lead to significant reductions in mercury concentration and methylation in Delta waterways.

e. **Once-through cooling.** Evincing its relaxed approach to resource protection, the State Water Board's 2008 Strategic Periodic Review acknowledges concern that once-through cooled electrical generating facilities in the Delta impinge and entrain significant numbers of fish and aquatic organisms and pelagic organisms and other threatened and endangered species. It then inexplicably proposes to address these imminent threats to listed species through development of a statewide policy. Presumably, the Central Valley Board will, following adoption of that policy and subject to some unspecified timeline, reissue NPDES permits for the power plants. The potential threats posed by these plants have been known for many years. The Mirant facility in Contra Costa County received an NPDES permit in 2001 that expired in April 2006. The State and Regional Boards have long had ample authority under the Water Code to require whatever studies were necessary to evaluate impacts to fisheries and to adopt measures protective of beneficial uses.

The State and Regional Board have known for decades that the Thermal Plan was inadequate. Indeed, Central Valley Board staff acknowledged as far back as the 1980s that the Delta-5 temperature standard is not protective and that biologically-based temperature criteria were necessary. Despite the fact that excessive temperatures have been identified as a serious limiting factor for listed species throughout the Central Valley, no funds have yet been provided to develop biologically-based temperature criteria. While we appreciate the fact that the State and Regional Boards are belatedly moving to address the once-through-cooling problem, we note that these problems have been known for a long time, should have been address years ago and will be deficient without biologically-based temperature criteria.

f. **Sediment Quality Objectives** Another example of the State Water Board's ambivalence in protection of public trust resources is the stop-and-go effort in developing sediment quality objectives. Toxic or potentially toxic sediments have been identified at a number of Delta locations.

In 1989, the California Legislature, as part of the Bay Protection and Toxic Cleanup Program, mandated that the State Water Board develop and adopt sediment quality objectives. The Board prepared a conceptual Periodic Review in 1991 but soon abandoned efforts to develop sediment objectives. However, in 1999, the Sacramento Superior Court ordered the Board to resume development of sediment objectives, pursuant to a lawsuit brought by Bill Jennings and Deltakeeper. The State Water Board elected to pursue development of sediment quality objectives through a lengthy and cumbersome stakeholder process. The majority of environmental participants withdrew in protest over the direction of the project, i.e., potentially responsible parties were insisting on a degree of monitoring and evaluation that was so extensive and expensive that it would be likely that only the very worst sites would ever be addressed. The developed approach envisions an extremely complicated three-pronged approach involving assessment of toxicity, bioaccumulation and biological assemblages. A scorecard will ultimately determine whether thresholds have been exceeded requiring cleanup.

Unfortunately, the complexity of the evaluation coupled with the substantial amount of expensive monitoring and assessment necessary to reach a conclusion means that potentially serious problems in the Delta may remain unaddressed. For example, fish tissue collected by DFG and analyzed by the San Francisco Estuary Institute revealed that catfish and largemouth bass caught in Stockton's Smith Canal contained concentrations of PCBs that exceeded OEHHA levels of concern. Results from a subsequent sampling demonstrated that the sediments were toxic and bioaccumulative. However, it is questionable whether anyone will ever be required to conduct the replicate sampling necessary to compel a cleanup.

- g. Invasive Species Management The Bay-Delta estuary has been identified as the most "invaded" estuary in North America. Invasive species are one of the three major suspected causes of the pelagic species crash in the Delta. In the late 1990s, Bill Jennings and Deltakeeper petitioned the Central Valley Board to begin development of a general order addressing the increasing impacts caused by invasive species. The petition described the 212 confirmed exotics and 123 suspected exotics that had already invaded the estuary. It laid out the State Water Board's regulatory authority over ballast water discharges and proposed specific actions that would potentially reduce the accelerating increase in the number of invasive species establishing a foothold in the estuary. The petition was ignored. Both the State and Central Valley Boards opposed our repeated efforts to have the Delta and tributary waterways identified on the state's CWA 303(d) List of Water Quality Limited Segments as impaired by invasive or exotic species. Finally, the State Water Board acquiesced and included the Delta as an impaired waterbody because of exotic species on the 2006 list. The Board's belated acknowledgement of the damage caused by invasive species is appreciated. However, the proposed program and the one person-year allocated to the project (split between the three water boards) are seriously inadequate and betray a fundamental lack of concern regarding this serious threat to the Bay-Delta ecosystem.
- h. **Blue Green Algae.** The toxicity of blue green algae poses a threat to both the Delta ecosystem and human health. The spatial distribution of these algal blooms has been rapidly expanding in the Delta over recent years. This expansion is likely fueled by increases in temperatures and nutrients and reduced flow. All three of these factors may be related to a failure to control nutrient loading into the Delta or provide necessary outflow to the Bay. Efforts to establish a monitoring and reporting program in order to better understand the fate and transport and environmental and human health effects are welcome. Unfortunately, the allocation of only one-third of a person year to this serious task is likely to prove seriously inadequate.
- i. Characterize Discharges from Delta Islands. The discharge of some 430,000 acre-feet of return flow from approximately 680,000 acres of Delta farmland involving some 1800 diversions and hundreds of discharge points clearly suggests a management challenge to water quality regulation in the Delta. "Characterization" of the pollutants in these discharges is fundamental to any serious effort to protect Delta water quality. However, the proposed project is a searing indictment of both the Central Valley Board and the irrigated lands program. Had requirements to submit Reports of Waste Discharge not been waived for agricultural dischargers, outflow from Delta islands would have been "characterized" years ago. Similarly, had the Board insisted that agricultural dischargers, coalitions and water districts comply with the same monitoring requirements it routinely demands from virtually every other segment of society, i.e., municipalities, industries, businesses (even mom-and-pop operations), discharges would have already been "characterized." Indeed, had the Board complied with its regulatory responsibility

to protect the water quality and the public trust values of Delta waterways, the receiving waters would also have been fully "characterized" by now.

While the State Water Board seems focused on agricultural discharges in the Delta, it inexplicably ignores the agricultural discharges from millions of acres of farmland along waterways upstream of the Delta. Presser and Luoma<sup>11</sup> found that the aquifers of the western San Joaquin Valley contain so much selenium that even if the San Luis Drain were built and new additions of selenium halted (no irrigation), with an annual discharge to the Bay of 43,500 pounds of selenium per year it would still take 63 to 304 years to eliminate the accumulated selenium from the aquifers. Pollutants from these upstream discharges gather in the Delta and likely represent a far greater pollutant mass than those coming from Delta farmers. Targeting Delta farmers for their agricultural drainage discharges while ignoring those who discharge upstream is simply and obviously hypocritical. The State Water Board should direct the Central Valley Board to immediately issue 13267 letters requiring *all* agricultural dischargers to "characterize" their discharges immediately. This willed ignorance must cease.

### III. C-WIN and CSPA's Specific Comments On The Staff Report for Periodic Review of the 2006 Water Quality Control Plan.

For the most part, C-WIN and CSPA agree with (and intend to participate in) the staff recommendations on Water Quality Control Plan issues previously identified for further review and the additional issues identified for further review in the draft staff Periodic Review report. C-WIN and CSPA also identify below additional issues that we believe warrant staff time. However, we retain little faith that State Water Board action will result in meaningful improvements to beneficial uses such as fisheries.

Again, we disagree strongly with the staff recommending no further review of fish screens and biological criteria (implementation plan for salmon doubling narrative in Water Quality Control Plan). Given all of the State and Central Valley Boards' failures noted above, C-WIN and CSPA believe it is time for U.S. Environmental Protection Agency to step in to promulgate its own water quality standards and implement them.

#### A. Issues Previously Identified for Further Review:

Evaluation of Southern Delta Salinity Objectives and Evaluation of San Joaquin River Flow Objectives

While we agree this is an issue warranting staff time and a potential Water Quality Control Plan amendment, Board member Art Baggett's 2008 temporary waiver in Order WR 2008-0029-EXEC of southern Delta salinity standards in D-1641, without hearings or evidence, indicates that the State Water Board is not interested in enforcing Southern Delta Salinity standards against the state and federal water projects in the South Delta. The 2009 request by Central

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<sup>&</sup>lt;sup>11</sup> Theresa S. Presser and Samuel N. Luoma. 2007. U.S. Geological Survey Professional Paper 1646. Forecasting Selenium Discharges to the San Francisco Bay-Delta Estuary: Ecological Effects of a Proposed San Luis Drain Extension. http://pubs.usgs.gov/pp/p1646/

Valley Project and State Water Project operators to waive compliance while not complying and the State Water Board's inaction on those documented violations again supports that finding.

While allegedly done to address the Governor's drought emergency, this outrage occurs — again—just 2years after a failed attempt by a State Water Board enforcement team to enforce the law (D-1641) against the state and federal water projects. As the staff prosecution team in that case wrote in their 2006 letter to the Board: "Government should be held accountable for environmental protection to the same extent as private parties and should be held to the same enforcement standards." Of course, that noble sentiment, and the law behind it, went out the window when the State Water Board ignored its own order and enforcement standards to politically please the Governor and the water projects.

For the aforesaid reasons, we ask the State Water Board to convene a hearing on the waiver of the agricultural water quality standards and in the meantime reinstate the permanent standards. As the Cease and Desist hearing record indicates, the projects can meet the standards by releasing water from reservoirs on the San Joaquin side of the Delta and by limiting pumping at the state and federal export projects.

Much more could be done to address south Delta salinity problems and San Joaquin River flow objectives. As D-1641 found, high salinity at Vernalis is caused by surface and subsurface discharges to the San Joaquin River of high saline water from agricultural lands and local wetlands. Below Mendota, the Department of Water Resources in 2006 attributed 67 percent of these saline flows to Grassland and northwestern areas of the western San Joaquin Valley. D-1641 clearly stated that regional management of drainage water is the preferred method of meeting these objectives.

The State Water Board has authority to initiate some effective actions toward this end. First, C-WIN and CSPA recommend that the Water Quality Control Plan be amended to eliminate the Vernalis Adaptive Management Program and reinstate the original D-1641 flow regime from 1995's Water Quality Control Plan. It is clear that the Vernalis Adaptive Management Program is a complete failure, as evidenced by continuing declines in San Joaquin River Chinook salmon stocks and the overall Pelagic Organism Decline.

Second, an appropriate hearing on this issue would also consider and adopt a land retirement program for drainage impaired agricultural lands in the two projects area of water use. C-WIN and CSPA hold to our position that irrigation of these saline seleniferous lands is a wasteful and unreasonable use of water in violation of Article X, Section 2 of the California Constitution.

The Pacific Institute, in its report *More With Less: Agricultural Water Conservation and Efficiency in California*<sup>12</sup> identified 1.3 million acres of drainage problem lands that could be retired, yielding up to 3.9 MAF in water savings. We believe that the State Water Board should initiate evidentiary hearings that study this problem and amend water right permit conditions so that these lands are no longer irrigated with imported surface water. Most of these lands were originally dry-farmed, or may have been irrigated with local sources of water.

According to information we have received from the Environmental Working Group, power subsidies to Westlands in 2002 and 2003 amounted to approximately \$70 million each year<sup>13</sup>.

<sup>12</sup> http://www.pacinst.org/reports/more\_with\_less\_delta/more\_with\_less.pdf p 7, pp1

<sup>13</sup> http://www.ewg.org/node/20989

Water subsidies to Westlands in 2002 amounted to over \$110 million<sup>14</sup>. If much of Westlands, as well as those impacted lands in other drainage-problem districts such as Broadview, Widren, Mercy Springs, Panoche, Pacheco as well as other lands within the State Water Project area were to be retired, it would free up 3.9 million acre-feet of water, as well as significantly reduce water and crop subsidies by tens of millions of dollars a year. Full analysis of such an alternative would provide meaningful disclosure to decision makers and the public about the true costs of continuing to deliver water to these problem lands.

Further investigation is needed to verify and refine these numbers, but clearly there is adequate justification to remove these lands from irrigation due to continuing drainage problems and salinization of land, in violation of Cal. Constitution, Article 10, Sec. 2 and Water Code Section 100- Wasteful and Unreasonable Use of Water.

#### B. Additional Issues Identified by Staff for Further Review

**Delta Outflow Objectives-** C-WIN and CSPA agree that this warrants a commitment of staff resources for a Bay-Delta Water Quality Control Plan. The Delta Smelt BO identifies that the Delta Outflow IS the habitat for smelt. It's not just a flow that "assists" fish traveling through, it's the only flow that's not subject to the influence of the Delta pumps, and IS the habitat for pelagic fish including Delta smelt, and certain life stages of longfin smelt

**Export/Inflow Objectives-** C-WIN and CSPA agree that this warrants a commitment of staff resources for a Bay-Delta Water Quality Control Plan. There are certain times of the year, for San Joaquin River fish, that there is a substantial additional inflow requirement necessary for them to be able to emigrate out through the Delta. It's therefore critical during the March through May salmon outmigration period from the San Joaquin River that the inflow number be 4 with export 1, in order for smolts to get past the Delta pumps and out through the Delta. This requires examination of the latest model runs from the California Department of Fish and Game (See appendix 5 of the June 4, 2009 Salmon Biological Opinion for more information). Particular attention should be made to recommended releases from Folsom, as recommended in the Salmon Biological Opinion.

The SWRCB should also consider significantly reducing summer Sacramento River inflows pursuant to recommendations in the Salmon Biological Opinion in order to improve outmigration of San Joaquin River salmon, maintain cold water storage in rim reservoirs and ensure that significant dewatering of Sacramento River Chinook redds does not continue.

**Delta Cross Channel Gate Closure Objectives-** C-WIN and CSPA agree that this warrants a commitment of staff resources for a Bay-Delta Water Quality Control Plan Amendment. There is a recommendation in the Salmon Biological Opinion that the gates be closed more often and in real time when the fish are moving.

**Suisun Marsh Objectives -** C-WIN and CSPA agree that this warrants a commitment of staff resources for a Bay-Delta Water Quality Control Plan. Operation of the salinity management gate on Montezuma Slough should be evaluated in the context of climate change.

**Reverse Flow Objectives (Old and Middle River Flow Objectives) -** C-WIN and CSPA agree that this warrants a commitment of staff resources for a Bay-Delta Water Quality Control Plan. It's clear that the existing flow objectives are inadequate to protect, let alone restore San

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<sup>&</sup>lt;sup>14</sup> http://www.ewg.org/reports/westlands

Joaquin River salmon. There are reverse flow objectives in both the salmon and smelt Biological Opinions, by the National Marine Fisheries Service and U.S. Fish and Wildlife Service, respectively.

**Floodplain Habitat Flow Objectives-** C-WIN and CSPA agree that this warrants a commitment of staff resources for a potential Bay-Delta Water Quality Control Plan Amendment. The recent Salmon Biological Opinion contains specific recommendations in this regard. However, the issue of mercury contamination needs to be closely examined to be sure that another problem is not being created in the name of creating habitat.

### Changes to the Program of Implementation- Changes to the Monitoring and Special Studies Program - Comprehensive Monitoring Program

C-WIN and CSPA agree that the State Water Board's Comprehensive Monitoring Program warrants a commitment of staff resources for a Bay-Delta Water Quality Control Plan Amendment. However, CSPA has long pleaded with both the State and Central Valley Boards to establish a comprehensive Delta-wide monitoring program similar to those conducted by the San Francisco Estuary Institute in San Francisco Bay and the Sacramento River monitoring program conducted by the Sacramento River Watershed Program in the Sacramento River. In 2004, Bill Jennings and Dr. G. Fred Lee presented the State and Central Valley Boards with a report titled *Overview of Sacramento-San Joaquin River Delta Water Quality Issues*<sup>15</sup> that described the Delta's water quality problems and the need for a comprehensive monitoring program. As that report has been presented to the Board, we incorporate it by reference. Unfortunately, no serious monitoring program focused on chemical contaminants has been developed. The State Water Board needs to expedite development of a monitoring program funded by dischargers and exporters.

With the possible exception of salt and mercury, there is a serious lack of reliable information on the concentration, fate and transport of contaminants in the Delta, despite the fact that many of these pollutants are highly toxic and bioaccumulate in fish and wildlife. A comprehensive monitoring program is critical to improving water quality, restoring fisheries or evaluating the potential impacts of future projects that contemplate a modification of the Delta's hydrology. Water quality and water quantity are irrevocably connected and can be characterized as flip sides of the same coin, nowhere more so than in the Bay-Delta Estuary and its watershed. Alterations of flow inevitably alter assimilative capacity. Changes in assimilative capacity directly affect habitat and water quality.

#### 3. Issues Not Recommended by Staff for Further Review

Ammonia Objectives- C-WIN and CSPA agree with staff that ammonia should be dealt with on a statewide basis, not in this Water Quality Control Plan. In regard to the effects of Ambient Ammonia Concentrations on Delta Smelt Survival and Algal Primary Production, while, the project to designed to identify the effects of pervasive ammonia concentrations is welcome, it is woefully underfunded and likely would not have been necessary had the Central Valley Board rigorously complied with state and federal antidegradation requirements and restricted ammonia pollutant loading. This issue points to an extremely serious and growing threat to Central Valley waterways: concentrations of pollutants that are deemed to be below water quality standards or at levels not perceived to be harmful are later revealed to be serious threats to beneficial uses. The Central Valley is one of the fastest growing areas of the state. Waters from north of

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<sup>&</sup>lt;sup>15</sup> See <a href="http://www.gfredlee.com/SJR-Delta/Delta-WQ-IssuesRpt.pdf">http://www.gfredlee.com/SJR-Delta/Delta-WQ-IssuesRpt.pdf</a>

Redding to south of Fresno gather in the Delta. Renewals of municipal wastewater NPDES permits routinely allow significant increases in pollutant mass loading; often exceeding the identified assimilative capacity of receiving waters.

Therefore, not only are statewide water quality objectives for ammonia necessary, but a stricter NPDES permitting regime is also necessary for compliance and meaningful water quality improvement. C-WIN and CSPA have little confidence that this is nothing other than another meaningless paper exercise.

**Toxicity objectives-** C-WIN and CSPA agree that toxicity objectives should be dealt with on a statewide basis, not in this specific Water Quality Control Plan. Nonetheless, the Delta has experienced significant increase in the ambient concentration of a vast array of contaminants; some exceeding water quality objectives, some below the threshold. The potential harmful consequences of synergistic and additive interactions, bioaccumulative toxins, sublethal or chronic impacts and the cumulative effects of multiple stressors remain largely unidentified and unaddressed. Further, it is an inescapable fact that water quality standards have never been promulgated for a large number of known and potentially harmful constituents. Only by restricting the increase in pollutant loading through application of antidegradation requirements can we hope to avoid the emergence of a multitude of "new" water quality problems in the future.

Furthermore, we note that the Biological Opinion for the California Toxics Rule<sup>16</sup> requires U.S. Environmental Protection Agency to develop aquatic tissue criteria for selenium, mercury and other toxic substances. U.S. Environmental Protection Agency has yet to develop such criteria for selenium, and as a result, the California Toxics Rule is in violation of the federal Endangered Species Act. The lack of acute and chronic tissue criteria is resulting in erroneous recommendations to delist the San Joaquin River under Clean Water Act Section 303(d) for selenium.

**Fish Screen Objectives**—As stated above in great detail, C-WIN and CSPA strongly disagree with staff that this issue does not require additional review. If the CalFed Record of Decision's requirement to screen the federal and State pumps in the southern Delta, things might be very different for the Delta Smelt and other species. The CalFed Record of Decision required that these screens be installed, at the expense of the water contractors, **prior** to consideration of a Peripheral Canal. Now the canal is on the table, yet the pumps continue to take millions of fish.

**Biological Indicators**—The Salmon Doubling Narrative in the 2006 Water Quality Control Plan is merely lip service to both federal and state mandates to restore fisheries by 2002 to twice the levels found in salmon and steelhead during the period 1967-1991. Instead, we find that salmon and steelhead have continued their decline, to the point that ocean fisheries dependent on Sacramento River Fall Chinook have been subject to unprecedented closures in 2008 and 2009. The Pelagic Organism Decline and the commercial salmonid fishery closures of 2008 and 2009 speak for themselves.

<sup>&</sup>lt;sup>16</sup> U.S. Fish and Wildlife Service and National Marine Fisheries Service. Biological Opinion on Final Rule for the Promulgation of Water Quality Standards: Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. March 24, 2000.

<sup>&</sup>lt;sup>17</sup> See California Fish and Game Code Section 6900-6924 and Public Law 102-575, Section 3406(b)(1), the Central Valley Project Improvement Act of 1992.

It is therefore imperative that the State Water Board develop an implementation plan for the Salmon Doubling Narrative found in the 2006 Water Quality Control Plan. Absent the commitment of funding to devising and implementing such a plan, it is evident that the State Water Board is not meeting its federal responsibilities under the Clean Water Act to protect beneficial uses. We think it warrants—along with the many other examples we list here—stripping the State Water Board of its Clean Water Act authorities by the U.S. Environmental Protection Agency

An implementation plan for the salmon doubling narrative would include activities to ensure that the State Water Project's and Central Valley Project's Methods of Diversion are Reasonable, Beneficial and Protect the Public Trust. Water Code Section 13550 provides a means for administrative enforcement of the reasonable use mandate. The State Water Board can seek enforcement through a number of statutory provisions. Among those statutory provisions is the reserved jurisdiction clause in water rights permits issued by the State Water Board (Water Code Section 1394). It retains jurisdiction for the State Water Board to revoke permits if a permittee should violate a permit term or condition. (23 C.C.R. 764.6)

Water Code Section 275 provides the State Water Board with expansive discretionary powers to take those actions necessary to eliminate water waste and to promote reasonable use. The State Water Board's decision as to whether to take action pursuant to Water Code Section 275 or to conduct investigations pursuant to Water Code Section 183 and/or 1051 is entirely up to the Board. The State Water Board's 2008 Strategic Plan intends to allow other agencies and stakeholders in the Bay Delta Conservation Plan and Delta Vision to exercise these statutory functions and leaves the State Water Board as a minor player whose only function is to evaluate and rubber-stamp whatever decision these processes produce. Such a plan is a sham and is not what the people of California deserve from the State Water Board. The reasonableness proceeding should be one of the first actions taken by the Water Board in the next year to provide the parameters for BDCP and Delta Vision, not the other way around. That was the purpose of the C-WIN and CSPA reasonable use complaint, which we filed in March 2008.

An implementation plan for the salmon doubling narrative would require water right investigation, enforcement, and other activities to ensure adequate fishery flows. As discussed previously, federal law (the Central Valley Project Improvement Act) waives federal sovereign immunity from state enforcement in regard to the Central Valley Project. Section 3406(b) of the Central Valley Project Improvement Act (Public Law 102-575):

3406(b) FISH AND WILDLIFE RESTORATION ACTIVITIES. "The Secretary, immediately upon the enactment of this title, shall operate the Central Valley Project to meet all obligations under state and federal law, including but not limited to the federal Endangered Species Act, 16 U.S.C. s 1531, et seq., and all decisions of the California State Water Resources Control Board establishing conditions on applicable licenses and permits for the project."

The United States Congress made it very clear that the State Water Board can regulate the United States Bureau of Reclamation just like any other water rights permit holder in its operation of the Central Valley project. There is no excuse for the State Water Board to fail to examine the reasonableness of the methods of diversion of the Central Valley Project and State Water Project, nor is there any immunity from California and federal law for these projects. The State Water Board should hold such an enforcement proceeding immediately to change the project water rights in response to the continuing environmental crash in the Bay/Delta.

In order to determine what reservoir releases are necessary to remedy inadequate flow (to improve the changes of the salmon doubling requirements in law) in the San Joaquin River, the State Water Board should also examine the Bureau of Reclamation's permits at Friant Dam. Bureau permits presently allow the diversion of massive amounts of San Joaquin River water at Friant Dam away from the lower river and the Bay/Delta and send the water into the Kern/Friant canal for use by water users outside the San Joaquin watershed. The State Water Board should also investigate the damage done to the lower reaches of the Tuolumne River and the Bay/Delta from the present exports diverted around the Bay/Delta by the City of San Francisco.

A component of an implementation plan for the Salmon Doubling Narrative in the 2006 Water Quality Control Plan should include Delta tributary water quality objectives and implementation through water rights for Salmon. Only the Sacramento River below Keswick Dam has Basin Plan water quality objectives protective of salmon which are implemented through a water rights order. The Trinity River has similar water quality objectives in the Water Quality Control Plan for the North Coast Region, but they have yet to be implemented through a water rights order, despite such a commitment made 20 years ago by the SWRCB in Water Quality Order 89-18.

Despite the fact that there are Basin Plan objectives for all of the Sacramento River salmon runs, which are implemented through Water Rights Orders 90-05 and 91-01, the State Water Board has dismally failed to protect Central Valley salmon, whose populations have utterly collapsed. A program which provides real benefits to salmon would also include multi-year management of the cold water pools in rim reservoirs to ensure that there will be adequate cold water resources to ensure survival of the various Central Valley salmon and steelhead runs and races especially through multi-year droughts. It was only by luck in 2009 that spring storms brought up cold water storage in Shasta and Trinity reservoirs enough to possibly avoid disaster for returning salmon.

**Water Use Efficiency-** The focus of water use efficiency should be on the major water users no matter where they are geographically in California. The Governor recently proposed a 20 percent cut in per capita water use statewide by 2020.

This State Water Board should include in its Bay-Delta water quality control planning efforts adopted state policy on water demand as well as water supply in order to protect water quality and beneficial uses. In most urban settings in California, more than 60 percent of water use is for outside uses, including water for lawns, pools, car washing, and other non-food or environmental uses. All of this information can be found, if the State Water Board cares to address it, in Department of Water Resources' Bulletin 160-05. It appears that the Water Board has never considered the possible remedies to the ever increasing export water demands contained in Department of Water Resources' Bulletin 160-05. Could it be that the State Water Board is moving so slowly to allow Bulletin 160-05 to quietly expire before it can be used to reduce demands on water diversions from the Bay-Delta? After all, if the 3 MAF of urban conservation water and the 2 MAF of agricultural conservation water identified in Bulletin 160-05 for urban areas is purposefully ignored, does the State Water Board hope these California water plan objectives will just go away, allowing exporters another opportunity to circumvent state and federal law in the Bay-Delta?

<sup>&</sup>lt;sup>18</sup> http://www.swrcb.ca.gov/board\_decisions/adopted\_orders/water\_quality/1989/wq1989\_18.pdf p 18

In addition to urban water conservation, the State Water Board should be acting to ensure that agriculture does its part. The report on agricultural water conservation by the Pacific Institute<sup>19</sup> identified millions of acre-feet of water conservation from a variety of methods, including 3.9 million acre-feet from permanent retirement of drainage problem lands in the Western San Joaquin Valley. Investigation of both salt loading and implementation of a land retirement program would provide both water quality and water supply benefits to the Bay-Delta.

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<sup>&</sup>lt;sup>19</sup> http://www.pacinst.org/reports/more with less delta/more with less.pdf