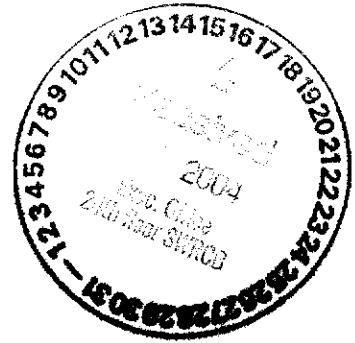




CLIFFORD W. SCHULZ

December 16, 2004



Debbie Irvin, Clerk to the Board
State Water Resources Control Board
1001 I Street
Sacramento, CA 95812

Re: Supplemental Information and Comments by Kern County Water Agency and State Water Contractors

Dear Ms. Irvin:

Enclosed are supplemental comments of the State Water Contractors and Kern County Water Agency with respect to Issues 7, 14 and 15. Should you have any questions, please do not hesitate to contact me.

Very truly yours,

KRONICK, MOSKOVITZ, TIEDEMANN & GIRARD
A Professional Corporation

Clifford W. Schulz

CWS/II

Enclosure

**STATE WATER RESOURCES CONTROL BOARD –
PERIODIC REVIEW OF THE 1995 WATER QUALITY CONTROL PLAN FOR
THE SAN FRANCISCO BAY’S SACRAMENTO-SAN JOAQUIN DELTA
ESTUARY**

**SUPPLEMENTAL INFORMATION AND COMMENTS BY THE KERN COUNTY
WATER AGENCY AND THE STATE WATER CONTRACTORS RELATING TO
ISSUES 15 (WATER QUALITY COMPLIANCE AND BASELINE MONITORING),
14 (DELTA CROSS CHANNEL GATES CLOSURE) AND 7 (SALMON
PROTECTION)**

On October 27 and 28 and November 15 and 16, 2004, the State Board held workshops related to Issues 15, 14, and 7, as those issues are defined in the Board’s “Staff Report,” dated September 30, 2004. Speakers representing both the State Water Contractors organization and individual State Water Project (“SWP”) contractors, including the Kern County Water Agency, presented technical information and policy recommendations related to these three Issues. This paper will summarize and augment some of those presentations, respond to certain presentations by other interested organizations, and provide our final recommendations with respect to the three subject Issues.

**I. ISSUE 15 – WATER QUALITY COMPLIANCE
AND BASELINE MONITORING**

Only brief comments are required, as this Issue represents a non-controversial proposal to improve the monitoring required by the 1995 Water Quality Control Plan (“1995 Plan”). State Board staff, in its Staff Report, stated that DWR has provided “compelling information” supporting its request to modify certain elements of Table 4 to the 1995 Plan. At the hearing, Dr. Russ Belmer of the U.S. Fish and Wildlife Service, also representing the Interagency Ecological Program, stated that the IEP had conducted the review that resulted in the recommended monitoring changes and that the IEP “totally supports the recommendation that [the State Board] heard today [October 27, 2004].” (Transcript, p.27, lns.15-20) No person or entity spoke in opposition to the requested changes.

What requires emphasis, therefore, is not whether to approve the monitoring changes, but how to implement them promptly. In that respect, we recommend that the State Board act, as soon as possible, to approve the proposed changes to Table 4 of the 1995 Plan, without waiting for the conclusion of the entire periodic review. This element of the periodic review is sufficiently independent from the other elements to allow it to be approved and implemented separately. Once that is done, the changes should be

implemented at the water rights permit level either by an order from the State Board's Executive Officer, to the extent authorized under Decision 1641, or by noticing a one issue hearing to amend Decision 1641 if that is required.

II. Issue 14 – Cross Channel Gate Operations

The presentations on this subject were marked by their lack of focus on current circumstances and the existing regulatory and non-regulatory criteria that govern when the Cross Channel gates are opened and when they are closed. To properly analyze the presentations and recommendations presented by the parties, those current circumstances and criteria must be fully understood:

1. The Delta Cross Channel is a vital component of the water delivery systems for both the Central Valley Project and the State Water Project. This is particularly true given the CALFED decision to fix the Delta using a "through Delta" water conveyance strategy. There is no way, in times of lower river flows, to meet CVP and SWP delivery needs unless Sacramento River water can be moved through the Cross Channel into the Central Delta and from there to the Banks and Tracy pumping plants.

2. Gate closures during times of lower flows can significantly degrade interior Delta water quality.

3. The need, from time to time, to modify Cross Channel operations for fishery purposes, is related to the downstream migration of salmonids. Resident fish species, such as Delta smelt, are not known to be affected by gate operations. The downstream migrations of listed salmonids – spring and winter runs – occur primarily during the fall to early spring.

4. The Delta Cross Channel gates are required to be closed by existing State Board requirements from February 1 through May 20 of all years. They are also closed to prevent flooding in the Central Delta channels when flows in the Sacramento River approach 25,000 cfs. As a result, the gates are closed for reasons unrelated to fishery protection many times from late fall to February 1 and are totally closed thereafter until May 20.

5. At times the gates may otherwise be open, the Cross Channel gates may be closed for salmonid protection at the request of the State and federal fish agencies. Pursuant to the 1995 Plan and water rights Decision 1641, the Cross Channel gates may be closed for up to 45 days between November 1 and February 1. In addition, if 45 days of closures are not adequate in any year, additional gate closures may occur through the CALFED Environmental Water Account program and/or as a "B2" action under the Central Valley Project Improvement Act.

6. The State and federal fishery agencies and the CVP and SWP operators, under the auspices of CALFED, have established a monitoring program and a set of protocols to determine when the Cross Channel gates should be closed to protect downstream

migrating salmon smolts. The monitoring program and protocols are based on the knowledge that the great majority of smolts migrate from their breeding grounds in response to flow pulses. When those storm related pulses occur, monitoring will detect if fish are beginning to move downstream several days before they would reach the area of the Cross Channel. The protocols are then used to determine if enough salmon smolts have begun their outward migration to warrant closing of the Cross Channel gates under circumstances where otherwise they would remain open to protect exports and/or in-Delta water quality. Any potential conflicts among fishery protection, water quality, and exports only occur in the fall and early winter, before the gates are closed permanently (February 1) and when Sacramento River flows are below 25,000 cfs.

7. The monitoring identifies the bulk of the downstream migrating smolts and give the project operators sufficient time to close the gates before any particular block of fish reaches the Cross Channel. Under current procedures, the Cross Channel gates are capable, without major modifications, of being operated to protect the fishery resource.

With this background in place, one can begin analyzing the Delta Cross Channel presentations and developing an understanding of why neither of project operators nor any of the responsible fish agencies are recommending modification of the Cross Channel criteria at this time.

This review begins with the presentation by Pat Brandes of the US Fish and Wildlife Service. What was surprising about this presentation is what was *not* included. Neither Ms. Brandes nor anyone else from the Fish and Wildlife Service explained how the presentation was relevant to the issues before the State Board in this periodic review.

The data presented was developed during the late 1980s and early 1990s, and those working on Delta matters have seen it many times in many forums. In fact, Ms. Brandes' work provided support for the *currently existing* gate closure objectives and the monitoring and protocols that have been specifically designed to exclude as many salmon smolts as reasonably possible from the Central and South Delta channels, while still protecting water supply and water quality. If any of the parties to this periodic review had been arguing that the existing Cross Channel closure requirements should be eliminated, Ms. Brandes' testimony would have been useful to counter such a proposal.

But no one was suggesting this, and what her presentation did not do is provide information to the State Board or the parties relevant to the pertinent issue of how well the current objectives, monitoring, and protocols are working.

Ms Brandes' Exhibit DOI-EXH-20, compares the movement and survival of smolts when the Cross Channel gates are open to when they are closed. If, under current Delta operations, large numbers of smolts were passing the Cross Channel when the gates were open, then Ms. Brandes' work might support an argument that many smolts were

entering the Central and South Delta where there chances of surviving were less than those smolts that remained in the Sacramento River system.¹

But today, the monitoring and protocols for closing the gates, as described during the workshops, are specifically designed to enable a substantial percentage of the smolts to pass the Cross Channel when the gates are closed. No one, including Ms. Brandes, has opined that this system is not working or that a change in the number of days of authorized gate closures would create a statistically meaningful increase in the number of adult salmon returning to spawn three years later.

One key to the success of the existing monitoring and protocols is the way salmon smolts migrate through the Delta. As noted above, they tend to move in response to storm events. Graphically, over a time series, one can see a series of spikes (representing a large number of migrating smolts) that correlate with the flow pulses associated with storm events. Outside of the spikes, a much lower background level of fish may move through the system. By closing the gates at the time of the spikes, a large percentage of salmon smolts can be kept in Sacramento River system. If the gates were closed outside of these spikes, a small increment of smolts might be kept in the Sacramento River system, but sometimes, when flows are low, at a very high cost to other protected beneficial uses such as water quality and water supply. The information provided in SWC-EXH-1 shows the devastation that can occur if one does not recognize the need to provide balanced protection to all beneficial use categories. We suspected, if anyone felt the current process was ineffective, that data supporting such a view would have been proffered at the workshop. That did not happen. No one provided data criticizing the current operations or quantifying any benefit that might be derived from modifying the Cross Channel objective contained in the 1995 Plan.

The presentation by Tina Swanson for the Bay Institute contains similar flaws to the information provided by Pat Brandes. It provides no insight into what, if any, benefits² one would expect to derive from 15 days of additional Cross Channel gate

¹ The State Water Contractors and KCWA question the validity of several of the statistical correlations presented by Ms. Brandes. For example, her data fails to separate the changes in the survival indices caused by factors unrelated to the status of the Cross Channel gates, such as the fact that the marked fish inserted into the river above the Cross Channel must travel a greater distance to Chipps Island than those inserted below the Cross Channel. However, our comments do not focus on those statistical issues because Ms. Brandes' presentation, even if statistically correct, is not useful for analyzing whether a significant incremental benefit to salmon smolts would accrue from modifying the 1995 Plan's Cross Channel gate objective.

² For the State Water Project contractors, the word "benefits" should be defined as a measurable increase in adult salmonid escapement. It must be remembered that the measurements of survival in the Delta are of young-of-the-year fish, most of which are not destined to survive to be adults that return to spawn. This is not to say that we do not recognize the importance of enhancing survival of young-of-the-year salmon smolts. The SWP contractors supported adoption of the existing Cross Channel gates objectives precisely to improve through-Delta survival of salmon smolts. Nonetheless, there is a tendency by some to overstate the importance of the Delta to salmonid protection and recovery. As Professor Wim Kimmerer indicated (WK-EXH-1), preliminary analysis shows that upstream actions and fishery management are far more significant for improving salmon stocks than actions in the Delta that might slightly reduce smolt losses in the Central and South Delta.

closures. This is particularly significant when the available historic data shows that, over the nine years that the existing program has been in place, the fishery agencies have never requested that the gates be closed for 45 days when they would otherwise be open. The high point occurred in 1997, when the gates were closed for fishery purposes for 43 days. Other than that instance, the greatest number of days was 34, and the most common numbers were in the twenties.

The State Water Contractors in cooperation with others, and in consultation with the fishery agencies, have developed a quantitative model for winter-run salmon that we hope will allow us to tease out information on incremental benefits that might be derived from closing the Cross Channel gates at times other than those when it is currently closed (i.e., when the spikes of fish are passing the gates). However, application of the model to the Delta Cross Channel is not an easy process, as the model requires analyses of daily operations and estimates of the number of fish susceptible of being moved into the Central Delta at times when only a relative few fish may be within the area of the gates. To the extent that this work on the Cross Channel can be completed before this periodic review concludes the contractors are more than willing to provide the State Board with this additional data.

In the meantime, all available data shows that the existing regulatory program, as supplemented by CALFED actions such as the Environmental Water Account, is working. There are no data that indicate that changes in Cross Channel gate operations would measurably improve adult salmonid survival; yet substantial data show that excessive gate closures when flows are low can seriously hurt statewide water supplies and in-Delta water quality. Thus the State Water Contractors and the Kern County Water Agency urge the State Board to leave the Cross Channel objectives unchanged.

III. Salmon Doubling

The salmon doubling narrative objective, as set forth in the 1995 Plan, reads as follows:

Water quality conditions shall be maintained, together with other measures in the watershed, sufficient to achieve a doubling of natural production of chinook salmon from the average production of 1967-1991 consistent with the provisions of State and federal law.

No party at the periodic review workshops challenged the validity of this goal or suggested that it be converted to some form of numeric objective. Instead, the presentations revolved around three subjects – (a) what are the respective roles of the Delta and the upstream reaches of the Sacramento and San Joaquin Rivers and their tributaries in achieving the doubling goal, (b) what constitutes doubling, and (c) should steelhead trout be added to the doubling goal.

No speaker challenged the conclusion that salmon doubling is a basin-wide endeavor, or contended that the goal could be reached with Delta actions alone. The

presentations and dialogue, in fact, demonstrated that the phrase “together with other measures in the watershed” may be the most important element of the objective as now written. In addition, when the rhetoric is stripped away, everyone recognized that progress was being made toward the goal. The State Water Contractor’s presentation lauded the gains that have been made since the Bay-Delta Accord was issued in late 1994, while the Bay Institute focused more on its disappointment that more progress had not been made. But both parties’ exhibits showed that progress has been made.

Further, other than the Delta Cross Channel, which has already been discussed above, no party argued for or suggested changes in the 1995 Plan’s numeric objectives. Quite frankly, that is because little can be done in the Delta beyond what is currently in place. Colloquializing what Professor Kimmerer stated, the bang for the buck for improving salmon stocks is found in the upstream areas and the ocean.

Thus, the State Water Contractors and the Kern County Water Agency have no objection to leaving the narrative standard as it reads now, as long as the limits of what can be accomplished in the Delta are recognized and as long as the doubling effort is focused broadly on all areas where salmonids, live, grow and breed. The Delta is just a migration corridor – albeit, one that needs attention – while the ocean and the upstream areas are where the species spend most of their lives and carry out their critical breeding activities.

With respect to what constitutes doubling, we believe the Board cannot answer that question within the context of a proceeding that only relates to the Bay-Delta water quality control plan. If the Board is going to consider the recommendations of the Bay Institute that doubling be defined on a stream by stream basis for each race of salmon, the wrong water quality control plan has been noticed for review and the wrong set of interested parties are involved.³

With respect to adding steelhead trout to the doubling goal, one must ask the questions: “double from what number” and “what series of years should be used.” For salmon, substantial information existed as to the number of returning spawners for the years 1967 through 1991. Thus, deciding that doubling was the proper goal and knowing what numbers of returning spawners would constitute doubling could be ascertained. We are not aware of similar data for steelhead trout that would enable us to pick a target and know when it was reached. Further, since the species is now listed, it seems logical to defer to the ESA process of establishing recovery goals. This process should develop the data needed to act on the basis of knowledge, rather than guesswork.

³ We do not want to leave the impression that the State Water Project contractors concur with this suggestion. We believe, among other problems, that such an approach would be an impossible nightmare to administer. However, we would like to defer substantive argument on the topic until the proper proceedings have been noticed and the full panoply of interested parties are before the State Board.

IV. Conclusion

In the 1995 Plan, the State Board made two important statements regarding the legal and practical aspects of that plan. As to the legal, the Board stated:

This plan establishes water quality objectives that will ensure reasonable protection of the beneficial uses and will prevent nuisance. It also recommends other controls. Overall, this document provides planning for reasonable controls on the factors which have been identified as likely contributors to the declines in aquatic resources in the Bay-Delta Estuary. Consistent with the intent of the State Legislature, as expressed in the Porter-Cologne Water Quality Control Act of 1969, as amended (Porter-Cologne Act) (Wat. Code §13000 et seq.), these objectives and recommendations are intended to attain the goal of the highest water quality which is reasonable, considering all demands being made and to be made on those waters and the total values involved, beneficial and detrimental, economic and social, tangible and intangible. (1995 Plan, p.3.)

When discussing the beneficial uses to be protected, the State Board made the following comments with respect to fishery objectives:

The objectives for the protection of fish and wildlife beneficial uses are established for the following parameters: dissolved oxygen, salinity (expressed as electrical conductivity), Delta outflow, river flows, export limits, and Delta Cross Channel gate operation. Unlike water quality objectives for parameters such as dissolved oxygen, temperature, and toxic chemicals, which have threshold levels beyond which adverse impacts to the beneficial uses occur, there are no defined threshold conditions that can be used to set objectives for flows and project operations. Instead, the available information indicates that a continuum of protection exists. Higher flows and lower exports provide greater protection for the bulk of estuarine resources up to the limit of unimpaired conditions. *Therefore, these objectives must be set based on a subjective determination of the reasonable needs of all of the consumptive and nonconsumptive demands on the waters of the Estuary.* As the long-term planning process for the Estuary, cited in the Framework Agreement, is developed and implemented, these objectives will be evaluated and modified, as necessary, to provide a level of protection predicated on more optimal physical facilities and management actions. (1995 Plan, pp. 14-15; Italics added.)

These quotations are as correct today as they were in 1995. The Porter-Cologne Act requires that objectives be reasonable and balanced, "considering all demands being

made and to be made on those waters,” including economic demands. When this statutory obligation is applied to objectives that relate to Delta flows and SWP and CVP operations, the second quotation correctly applies the statutory requirements when it states that such operational objectives must be “based on a subjective determination of the reasonable needs of all of the consumptive and nonconsumptive demands on the waters of the Estuary.”

Salmon doubling and Cross Channel gate operations are classic examples of operational objectives that require reasonableness and balancing to avoid impacting the reasonable needs of water users throughout the State.⁴ The information presented by the parties to this periodic review have not indicated that the current operational objectives are out of balance. On the contrary, the materials presented show that the SWP and CVP operators and the State and federal fish agencies have taken the 1995 Plan objectives and developed a highly detailed, real-time operation that, since the problems in December 1999, has done a very good job of operating the gates to protect salmon, while at the same time meeting water quality needs and not unreasonably impacting export operations. Under these circumstances, the adage “if it ain’t broke, don’t fix it” seems to apply. The Board should recognize the good work that has been accomplished by the governmental agencies involved and retain the Cross Channel gate objective as it now exists. With respect to the narrative salmon doubling objective, it probably should also be left as is -- but steps should be taken to make it clear that the Delta objective is only one part of a larger, basin wide effort that should be undertaken, probably under the auspices of CALFED, to bring about the long-term doubling of salmonid populations. Finally, we do not believe, that Steelhead should be added to the doubling objective without much more study of whether that is the appropriate objective.

⁴ It is the complete failure to recognize this fundamental point that makes the Bay Institute’s presentations to the State Board so incredibly wrong. In response to a question by Board member Sutley concerning the impact of Cross Channel gate closures on interior water quality, Dr. Tina Swanson stated that if water quality is a problem when the gates are closed, just reduce export pumping. (Transcript, p. 401-402) This single focus on fish, with no attention to balancing their needs with the need to protect other beneficial uses of the same waters, should be explicitly rejected.