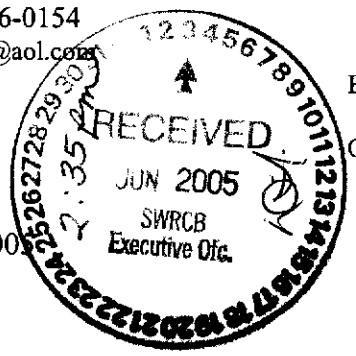
SOUTH DELTA WATER AGENCY

4255 PACIFIC AVENUE, SUITE 2
STOCKTON, CALIFORNIA 95207
TELEPHONE (209) 956-0150
FAX (209) 956-0154
E-MAIL Jherrlaw@aol.com



June 3, 2005

Ms. Debbie Irvin, Clerk of the Board
Executive Office
State Water Resources Control Board
Cal/EPA Headquarters
1001 "I" Street
Sacramento, CA 95814

Re: Comments to Periodic Review of the 1995 Water Quality Control Plan

Dear Ms. Irvin:

The South Delta Water Agency ("SDWA") submits the following comments in response to the evidence, testimony, and argument put forth in the various workshops held as part of the periodic review of the 1995 Water Quality Control Plan.

1. Two misconceptions have been repeated regarding SDWA. The first relates to one of its authorizing statutes. Water Code Appendix section 116-4.5 provides, "The agency shall have no authority or power to affect, bind, prejudice, impair, restrict, or limit water rights within the agency." This statute does not have any affect on the Agency's authority to represent the lands within its boundaries. SDWA is obligate to represent all landowners as it is required to "do any and every lawful act necessary in order that a sufficient in-channel water supply be available for any present or future beneficial use or uses of the lands within the agency." (Wat. Code Appendix § 116-4.2(k).) Section 116-4.5 merely clarifies that the agency has no authority to adversely limit or affect the water rights held by the landowners.

Second, both the 1995 Plan (Table 2) and D-1641 (section 6.3.4.2.4, at page 35) refer to or recommend SDWA enter into a contract with USBR and DWR for a water supply during times of shortage. Negotiations for such a contract were attempted and ended when the USBR informed SDWA that it would no longer participate. Thereafter, SDWA has attempted to work with DWR to get permanent barriers installed and undertook other actions to protect the supply and quantity of water within the Delta. This issue of "shortages" of supply is dealt with below.

2. The current Water Quality Objectives for Agricultural Beneficial Uses are 0.7 EC

from April through August and 1.0 EC from September through March for all four compliance locations in the South Delta (C-10, C-6, C-8, and P-12). The 1995 Plan goes on to conclude that implementation of the objectives will be accomplished through the release of adequate flows to the San Joaquin River and control of saline agricultural drainage to the San Joaquin River and its tributaries.

D-1641 also recognized that a combination of actions was necessary to meet the objectives. For example, the Board directed the Central Valley Regional Water Quality Control Board to develop and implement objectives upstream of Vernalis (D-1641 at pg. 85). Unfortunately, the Board in D-1641 did not fully implement the 1995 Plan. Table 2 (pg. 182, see also pg. 88-89) allowed the three interior South Delta objectives to never be implemented through footnote 5 which provided that the 1.0 EC objective would continue to control if permanent barriers are installed. The footnote also allowed the objectives to go back from 0.7 if after April of 2005, again, the permanent barriers were installed. This would appear to be a failure to implement a legally adopted water quality objective and an illegal change to a water quality objective (i.e., not done through a noticed change to the Water Quality Control Plan).

The question therefore before the Board is whether the 1995 Plan Water Quality Objectives for Agricultural Beneficial Uses should be changed, <u>not</u> whether D-1641's partial implementation should be changed.

3. The current water quality standard for salt (or more correctly the water quality objective for agricultural beneficial uses) were developed over many years, and pursuant to numerous scientific studies and stakeholder review. The August 1987 SWRCB Order No. 85-1 Technical Committee Report entitled *Regulation of Agricultural Drainage to the San Joaquin River* examined water quality issues specific to the lower San Joaquin River. It recommended 0.7 EC as the standard necessary to "fully protect irrigated agriculture." Salinity at or below this level was also determined to be protective of other beneficial uses in the river. (See Central Valley Regional Water Quality Control Board Draft Chapter V, page 2-3; proposed changes to Basin Plan.) The above-referenced Report is hereby requested to be included by reference in the Board's records of this periodic review of the 1995 Water Quality Control Plan, as it is the Board's own conclusions as to what is necessary to protect agriculture in the South Delta.

Other efforts and processes examine the issue of salt including SWRCB constituted work groups and committees during the 1980's and early 90's. A U. S. Department of Agriculture Committee released a January 4, 1982, study entitled *Water Quality Considerations for the South Delta Water Agency* which was authored by G. J. Hoffman, T. Prichard, and J. Meyer (attached). This study set forth the effects on crop yields resulting from different levels of salinity, depending upon the presence of effective rainfall and soil leaching fractions. Table 5 therein concluded that even with effective rainfall, the TDS needed to protect crop yields was: 570 for alfalfa; 650 for tomatoes; 280 for beans; 430 for corn; 440 for nuts; and 420 for grapes. We see therefore that in deciding on the salinity standard, the Board drew a line that protected some

crops completely, but not others (for comparison purposes, 450 TDS roughly equates to the 0.7 EC standard.)

SDWA also produced other evidence, specifically the testimony of Alex Hildebrand that explained how normal agricultural practices and differing leaching fractions limit the ability of South Delta farmers to use poorer quality water. Using the example of alfalfa, Mr. Hildebrand showed that simply applying more water to leach out salts from the soil was not practical. Mr. Hildebrand also presented an irrigation water quality chart he compiled with Dr. Gerald Orlob. This chart combined the results of University of California at Davis, Department of Agriculture, and SWRCB studies and listed the TDS requirements for various South Delta crops needed to fully protect yields. That chart also shows that alfalfa, tomatoes, beans, corn, grapes, and nuts all need 0.7 or better water quality.

Finally, a previously submitted SDWA exhibit included a study entitled *Impact of San Joaquin River Quality on Crop Yields in the South Delta* authored by Dr. Gerald Orlob. In this study, Dr. Orlob showed how to calculate the impact to crops in dollars resulting from changes in salinity of the water supplied for irrigation purposes. Any change in the 0.7 EC standard would therefore result in specific calculable money damages to South Delta farmers.

5. In order for the Board to change the current standards, it would have to look at existing statutes, regulations and policies; examine what is necessary to protect agricultural beneficial uses; determine whether meeting the standards is a reasonable use of water; and examine the impacts resulting from any such change.

A. Existing statutes and regulations require that water quality not be worsened. The Federal Anti-Degradation Statute and the State Anti-Degradation Policy (adopted by the SWRCB) both require protection of a higher water quality, not the lessening of an existing standard. Water Code section 12232 specifically prohibits the SWRCB from degrading the San Joaquin River. Obviously, changing a 0.7 EC standard to 1.0 EC would be a significant degradation of water quality.

B. In developing water quality objectives, the Board is required to adopt standards which reasonably protect beneficial uses (Wat. Code § 13241, see also § 13050). The Board and Regional Board's own studies have already determined that 0.7 EC is necessary to protect agricultural beneficial uses. Nothing has changed with regard to the soils, leaching factors, crop use, or agricultural practices since the standard was first developed. In fact, the delay in implementing the standards for the three interior South Delta locations has specifically resulted in harm as shown by the testimony of Bill Salmon and Kurt Sharp presented by SDWA at the workshop. Dr. Orlob's calculations could be used to show how the "temporary" 1.0 EC standard has yearly decreased yields and caused South Delta farmers monetary damages.

C. The issue of cost to the projects for maintaining water quality is not relevant to the discussion. Although the development of water quality objectives includes the examination of economic considerations, that issue is moot in light of other California statutes. Water Code section 12202 requires the SWP and CVP to provide salinity control and an adequate supply of water for in-Delta users. The statute goes on to say, "[I]f it is determined to be in the public interest to provide a substitute water supply to the users in said Delta in lieu of that which would be provided as a result of salinity control. . ."

The statute refers to the supply "provided by salinity control." This can only mean that the water released for salinity control is to provide not just quality protection, but to be part of the in-Delta supply. The statute then states that if it is determined to be in the public interest to provide a substitute supply, rather than the supply resulting from salinity control, Delta water users shall not be charged. [The references to sections 11460-11463 clearly direct the projects to not adversely affect other area of origin users' supply if a substitute supply is provided for the Delta. In other words, the supply to the Delta is not meant to trump area of origin priorities. The reference to the area of origin sections cannot mean that although the Delta users won't be charged for the substitute supply, area of origin statutes still allow them to be charged.]

Therefore, the issue of costs associated with providing water quality protections is irrelevant to the Delta. Since State law requires water quality protection at no cost to in-Delta diverters, the Board cannot worsen water quality because it "cost too much."

Other statutes support this policy that the projects will protect in-Delta supply and quality, including sections 11207, 12204, and 12205. Section 12204 requires the Board determine the amount of water available for exports after the projects meet in-Delta supply and water quality needs. Hence, adverse effects on exports cannot be a consideration in protecting Delta water quality. Section 12205 requires that releases for exports be coordinated with the requirement of meeting in-Delta supply and water quality needs. Hence, protection of water quality in the Delta cannot be a function of whether or not "natural flows" are in the Delta and are available for diverters. If the projects must coordinate releases to meet the obligations for water quality and supply in the Delta, one cannot conclude that in-Delta users cannot use those coordinated releases. Why else would the releases be coordinated to the needs of the Delta Protection Act if the water could not be used to actually meet the objectives of the Act.

D. It should be clearly noted that the idea of their being an insufficient supply for in-Delta users is factually wrong. No drought has ever resulted in a dry Delta. The Delta is tidal, and its channels are therefore by definition at or below sea level. Hence, regardless of inflow, there is always an available supply of water to in-Delta diverters. ["The record shows that the quantity needs of almost all of the Delta users are met almost all the time and depletion of inflow will not affect this availability." D-1379 at page 21; see also pages 149-150 of the *1980 Report on the Effects of the CVP on the Sacramento-San Joaquin Delta* which includes channel surveys indicating the depths of the channels as being below seal level; see also *Governor's Commission*

to review California Water Rights Law Riparian Water Rights in California authored by David B. Anderson which states on page 67, "Water quality is an important element of a riparian right. In the Sacramento-San Joaquin Delta, the value of the riparian right is only the quality of the water, since adequate quantities of water are always available because of tidal action.]

The question is therefore maintaining the quality of that supply, not whether or not there is any quantity available. As referenced above, numerous statutes as well as numerous SWRCB decisions all require the projects to maintain that quality. Hence, any discussion about only protecting "natural flow" is wrong and irrelevant. This issue was decided in the *Racanelli* decision when the Court determined that the SWRCB's job was not to protect what was available under natural conditions or just protect water rights, but was to protect beneficial uses. *United States v. State Water Resources Control Board* (1986) Cal.App.3d. 116.

6. The SWRCB concluded in the 1995 Plan and in D-1641 that in order to control quality (salinity), there would need to be a combination of actions both upstream and downstream. Those actions included the control of drainage, dilution flows through various sources, barriers, etc. None of these were anticipated to be the sole solution to the problem. At this point, the Bureau has only made releases from New Melones to control salinity. It has not controlled drainage upstream in any manner, and it has not done anything to get permanent tidal barriers installed (DWR has not just taken the lead on the barrier program, they have done all of the work). Hence, if the Bureau has not done anything to meet the existing standards except release water from New Melones, they cannot complain that it is unreasonable to require releases to meet the standard. Since they have created the situation where only one of the combination of actions is available, they cannot argue that it is an unreasonable use of water to only use that one action. Until we know how much drainage control, how much barrier operations, and how much other actions are necessary to meet salinity control, we do not know how much dilution water is necessary to meet the standards and therefore cannot conclude whether it is an unreasonable use of water to meet those standards.

As shown in the workshop, the Bureau has not even made one phone call to explain how it might exchange, transfer, or sell additional water for dilution purposes. It has not tried to recirculate water to meet the standard. Either of these actions would actually result in additional Delta inflow which could be exported by the Bureau. Hence the Bureau could have asked to undertake various actions on the condition that it be able to export some of the water.

7. Any lessening of the Vernalis or interior South Delta standards would decrease Delta inflow. This would transfer outflow, X2, and consumptive use obligations to other users. It would decrease the quality of water for other in-Delta diversions including Contra Costa Water District's municipal supply. The impacts of these shifts would be substantial and do not justify any lessening of the standard.

8. The Board should not anticipate that a permanent barriers program is an acceptable method of meeting water quality needs. Whatever the ultimate benefits of the proposed permanent barrier program, the issue before the Board is whether 0.7 EC is necessary to protect agricultural beneficial uses. If the barriers only provide 0.8 or 0.9 EC protection, then they cannot be assumed to be a substitute for meeting the water quality standards. The Board cannot adopt as implementation of the 0.7 EC standard, a method that it knows will not result in compliance with that standard. Hence, the Board must maintain the 0.7 objective and order the various actions which it anticipates will attain the objective.

9. Other parties introduced evidence to argue against maintaining 0.7 EC as the objective. As set forth in the workshop, these opinions were not based on facts specific to the South Delta, and certainly cannot be said to undue 30 years of studies by the Board. One of SJRGA's witnesses claimed that the 0.7 standard ignored the effect of leaching of rainfall. That premise was shown to be false. In addition, rainfalls' effect on leaching is a factor of when and how much occurs. The objectives cannot assume that every year the South Delta rainfall will occur in a few instances, at sufficient levels, and at the right times to provide adequate leaching. SJRGA's other "expert" witness recommended that South Delta farmers simply put another two to four inches of water on the land during irrigation. As shown above in Alex Hildebrand's Comments, this proposal shows a lack of understanding of actual agricultural practices. A farmer in July in the Delta cannot simply leave more water on his field for an additional five to ten days for leaching purposes, because it prevents him from doing other necessary things like harvesting his crop.

Finally, SJRGA suggested that there were fewer acres of beans in the South Delta and that since the 0.7 standard was only needed for beans, the Board therefore need not protect those limited acres. As shown above, this standard was not just not protect beans but a variety of other crops as well. Bill Salmon lost approximately one-half of his bean crop at EC's of .7 to .9 in 2002. There is no justification for permanently excluding South Delta growers from farming beans because the tributary agencies are afraid they too may someday have downstream obligations.

10. In conclusion, no reliable evidence was submitted to indicate that the 0.7 standard at any of the four South Delta locations should be changed. In fact, all of the evidence gathered by the SWRCB over the years indicates that 0.7 EC standard is necessary to protect agricultural beneficial uses. South Delta Water Agency therefore recommends that the standard be maintained, that the time frame for the 0.7 standard be expanded to include the months of March and September which are also important for the production of agricultural goods, and that additional compliance locations be considered once the flow patterns resulting from the SDIP have been determined.

Please call me if you have any questions or comments.

Very truly yours,

JOHN HERRICK

JH/dd
Enclosure

CHAPTER VII

EFFECTS OF OPERATION OF CVP AND SWP EXPORTS PUMPS NEAR TRACY

CHANNEL DEPTHS AND CROSS SECTIONS

The geometry of the channels within the southern Delta was studied to determine whether the channel cross sections and bottom elevations have changed since the 1930's in such a way as to alter water circulation patterns and water depths to a degree that modifies the southern Delta