



**CONTRA COSTA
WATER DISTRICT**

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February 7, 2006

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Mr. Paul Marshall,
California Department of Water Resources
Bay Delta Office
1416 Ninth Street
Sacramento, CA 95814

**Re: Draft Environmental Impact Statement/Environmental Impact Report for
the South Delta Improvements Program**

Dear Ms McHale and Mr. Marshall:

Contra Costa Water District (CCWD) appreciates the opportunity to submit comments on the Draft Environmental Impact Statement/Environmental Impact Report (DEIS/EIR) prepared by the California Department of Water Resources and the United States Department of the Interior, Bureau of Reclamation, for the proposed South Delta Improvements Program (SDIP). CCWD is an urban water agency charged with providing a reliable supply of high quality drinking water to approximately 500,000 people throughout north, central and eastern Contra Costa County. CCWD depends on the Sacramento-San Joaquin Delta for its water supply, and it is directly and substantially affected by projects such as the SDIP that degrade water quality at its Delta intake locations.

The SDIP – which includes installing permanent gates in the Delta and increasing State Water Project pumping – would have a dramatic, negative impact on CCWD’s drinking water supply and its ability to provide high quality water to its many customers. The SDIP would make the water at CCWD’s Delta intakes saltier – salty water not only tastes bad, it can also have serious health effects, by reacting with disinfectants to form harmful disinfection by-products.

Salty water in the Delta also negatively impacts CCWD’s Los Vaqueros Reservoir. CCWD ratepayers paid \$450 million to construct the reservoir in order to improve the quality of water delivered by CCWD and improve the reliability of the emergency water supply available to CCWD. The SDIP would cause an effective loss of 12,000 acre-feet of Los Vaqueros Reservoir storage, eliminating 12% of the \$450 million investment made by CCWD customers. Installing the permanent gates alone, without any increased pumping, would cause a loss of nearly 5% of the reservoir’s storage capacity.

The DEIS/EIR utterly fails to address the SDIP's impacts on drinking water and therefore fails to comply with the requirements of both the California Environmental Quality Act and the National Environmental Policy Act. One of the most important obligations established by these laws is the requirement to provide a fair and accurate disclosure, so that the public and the decision-makers are fully informed about the project's environmental consequences. But instead of accurately disclosing the project's impacts, the DEIS/EIR relies on unsound methodologies that serve only to mask the significant, negative effects that would result from the SDIP. As a result, the DEIS/EIR fails even to consider, let alone propose, mitigation measures that are vitally needed to protect drinking water for hundreds of thousands of Californians.

The attachments to this letter contain our detailed comments on the DEIS/EIR. To provide just a few examples of the serious flaws in the environmental analysis:

- The DEIS/EIR relies on long-term annual averaging to minimize both short-term and seasonal impacts. DWR's own water quality modeling shows that the SDIP will cause chloride concentrations at CCWD's Delta intakes to increase by as much as 148 milligrams per liter (mg/L) on a daily basis, which is clearly significant given CCWD's goal of delivering water to its customers with a chloride concentration of no higher than 65 mg/L.
- The DEIS/EIR sweeps under the rug the significant impacts of installing permanent gates in the Delta, based on the dubious logic that these impacts are not substantially different from the impacts that already occur as a result of DWR's temporary barriers, which were designed merely as an interim test project to assist in the design and development of the permanent gates that are now proposed for approval.
- The DEIS/EIR acknowledges that increased pumping will pave the way for additional water transfers, resulting in yet more Delta exports, but it fails to disclose the water quality effects resulting from these reasonably foreseeable transfers.
- While the SDIP represents merely the first step in increasing State Water Project pumping, the DEIS/EIR improperly segments the analysis by ignoring future increases that are planned under the CALFED program.

Water quality in the Delta has been substantially degraded over the years by agricultural dischargers, urban development, and increased diversions of Delta water. The SDIP will exacerbate this already grave situation. CCWD has repeatedly expressed its concerns to DWR concerning the potential for significant water quality impacts. We provided comments on two previous draft environmental documents for this project, in 1990 and 1996, and we have reiterated our concerns during the preparation of the current EIS/EIR. But after 15 years and three draft environmental documents, the SDIP's adverse water quality impacts have not been adequately disclosed, significant impacts have been hidden by arbitrary and unreasonable methodologies, and mitigation for these impacts has yet to be considered. The Draft EIS/EIR

Ms. Sharon McHale
Mr. Paul Marshall
Draft EIS/EIR for the South Delta Improvements Program
February 7, 2006
Page 3

needs to be substantially revised and the revised draft needs to be recirculated for another round of public review and comment.

The SDIP should only proceed as part of a balanced Delta Improvements Package (DIP) that also improves drinking water quality. Balanced implementation of water supply, water quality, ecosystem, and levee improvements is the cornerstone of the CALFED effort. The SDIP will improve water supply, and will improve water quality for some agricultural uses, but it will degrade drinking water quality and exacerbate the current lack of balance in CALFED accomplishments. The CALFED DIP provides a mechanism to ensure that the SDIP goes forward as part of a package that provides necessary water quality improvements. Since both the California Department of Water Resources and the U.S. Bureau of Reclamation participate in CALFED and support the DIP and the concepts behind it, they should propose the SDIP only as a part of the complete DIP, rather than as a stand-alone project with significant unmitigated water quality impacts.

CCWD looks forward to your responses to our comments, including the detailed comments contained in the attachments that follow. We would be happy to work with you to find ways to avoid or mitigate the SDIP's water quality impacts. If you would like to discuss this, or if you have any questions regarding CCWD's comments, please call me at (925) 688-8187.

Sincerely,



Richard A. Denton
Water Resources Manager

RAD/wec

Attachments

- A. General comments on the inadequacies of the DEIS/EIR
- B. CCWD operations and facilities
- C. Additional page-by-page comments on the DEIS/EIR
- D. Additional comments on fisheries impacts of SDIP
- E. How the SDIP affects water quality at CCWD's intakes
- F. The impact of the SDIP on CCWD operations and delivered water quality
- G. Data regarding the impacts of the SDIP on water quality at CCWD's Delta intakes
- H. Temporary Barriers Operating Schedule
- I. Previous CCWD Correspondence regarding South Delta Barriers and Exports and Related Letters from Other Agencies
- J. Contra Costa Times series on "Delta in Decline"



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Attn: Douglas Kleinsmith

**Re: Draft Environmental Impact Report/Environmental
Impact Statement for the South Delta Water
Management Program**

Gentlemen:

This letter sets forth the comments of the Contra Costa Water District ("CCWD") to the Draft Environmental Impact Report and Environmental Impact Statement ("EIR/EIS") for the South Delta Water Management Program ("SDWMP").

This letter consists of four parts. Part I provides a summary and overview of CCWD's comments on the Draft EIR/EIS. Part II describes CCWD's existing water system and proposed new facilities. Part III describes methodological deficiencies of the Draft EIR/EIS. Part IV describes deficiencies in the analysis and scope of the Draft EIR/EIS under the pertinent provisions of the California Environmental Quality Act, Pub. Res. Code § 21000 et seq. ("CEQA") and the National Environmental Policy Act, 42 U.S.C. § 4321 et seq. ("NEPA").

I. SUMMARY OF COMMENTS

The Draft EIR/EIS for the SDWMP:

1. Fails to assess adequately the impacts of the project on CCWD and its customers. The project may damage CCWD and its customers by:
 - a) Impairing the beneficial uses to which the water supplied by CCWD is put.
 - b) Increasing salinity at CCWD's existing and proposed intakes.
 - c) Altering flow patterns in the Delta in ways that may cause water quality degradation.
 - d) Creating unacceptable adverse effects on municipal water supplies.
 - e) Conflicting (both physically and operationally) with the Los Vaqueros Project proposed by CCWD.
2. Fails to address adequately water quality impacts:
 - a) The project is not evaluated by itself; it is only evaluated in conjunction with other projects being proposed by DWR (Kern Water Bank and Los Banos Grandes). The effects of the project by itself must be clearly identified.
 - b) The water quality modeling included an inadvertent error in the analysis of the preferred alternative and several other alternatives. The error should be corrected and the project reanalyzed.
 - c) Water quality model results were sometimes "adjusted," making evaluations of the impacts difficult, if not impossible.
3. Fails to provide mitigation plans or alternative operational procedures to reduce or eliminate significant impacts, including those which have unacceptable adverse effects on municipal water supplies. Improvement of water quality is a project purpose. The EIR/EIS should explicitly state how it will be determined that the project is in fact achieving this goal and must include a detailed monitoring and mitigation plan to assure that it will do so.

4. Fails to assess adequately the environmental effects of the use of the water yield from the project and the effects of the project on the State's water supply, particularly the loss of water through increased evaporation caused by the proposed Clifton Court forebay expansion.
5. Fails to assess adequately the significant cumulative effects of SDWMP in relation to other foreseeable projects.
6. Fails to analyze an adequate range of operational and project alternatives.

II. CCWD OPERATIONS AND FACILITIES

CCWD operates raw water distribution facilities and water treatment and treated water distribution facilities. CCWD presently supplies raw water to Antioch, Concord, Oakley Water District, Pittsburg, Southern California Water Company (serving West Pittsburg), Martinez, parts of Pleasant Hill and Walnut Creek, 10 major industries, 36 smaller industries and businesses, and approximately 35 agricultural users. CCWD serves approximately 400,000 people throughout north-central and east Contra Costa County.

The Contra Costa Water District is entirely dependent upon the Delta for its water supply. The Contra Costa Canal system is CCWD's principal water supply and delivery system. This system obtains water from unregulated and regulated flows from the Bureau of Reclamation's ("Bureau") Central Valley Project (CVP) storage releases from Shasta, Folsom, and Trinity Lakes into the Sacramento River. Diversions and rediversions are then made in the Delta to CCWD's system at Rock Slough. Under Water Service Contract I75r-3401 (amended) with the Bureau, CCWD can divert up to 195,000 acre-feet/year (af/yr) of water from Rock Slough. Currently, CCWD uses approximately 125,000 af/yr of water. CCWD can also divert up to 26,780 af/yr of water from Mallard Slough in the Delta. (Water Rights License No. 3167 and Permit No. 19856). This diversion has been made in lieu of diverting water through the Contra Costa Canal, but only minor diversions have been made from Mallard Slough in recent years because of unacceptable water quality.

Since 1940, CCWD has obtained its water from the Delta, which is subject to wide variations in salt and mineral concentrations. This source of water supply has made CCWD and its customers vulnerable to any artificial or natural phenomenon that could cause a deterioration of Delta water quality.

Water quality changes in Delta water are noticeable to those who drink the water or use the water in commercial and industrial processes. Degradation in water quality is objectionable to many CCWD customers, costly to all residential and industrial users, and a health risk for some individuals. Degradation impairs the beneficial uses to which the water supplied by CCWD is put.

CCWD is committed to supplying its customers with the highest quality water practicable and providing all reasonable protection of the supply from any known or potential source of hazardous contamination. CCWD Resolution No. 88-45 states in part that:

"CCWD is committed to reducing the concentration of sodium and chloride in the District's water, thereby reducing household

and landscape irrigation concerns and industrial and manufacturing costs caused by the fluctuating sodium and chloride level of the District's Delta source...."

In May 1987, CCWD's board of directors adopted desired quality objectives for water distributed within its service area. The acceptable levels of sodium and chloride were established at 50 milligrams per liter (mg/l) and 65 mg/l, respectively.

In 1988, the voter-constituents of CCWD approved the issuance of bonds to finance a water quality and reliability project known as the Los Vaqueros Project. The Los Vaqueros Reservoir Alternative would consist of a reservoir with about 100,000 acre-feet (af) of storage, a new point of diversion in the Delta in conjunction with the current Rock Slough diversion point, associated water conveyance and delivery facilities, pumping plants and other facilities.

The primary purposes of the Los Vaqueros Project are to improve the quality of water supplied to CCWD customers and minimize seasonal quality changes, and to improve the reliability of the emergency water supply available to CCWD. Recently, detailed engineering studies and economic evaluations have shaped the development of specific project objectives and planning assumptions to facilitate project design. As you are aware, DWR staff has been kept informed of the development of plans and the progress of the Los Vaqueros Project through regular, periodic meetings in which status reports, drawings and other data has been provided. Preliminary scoping on the environmental impacts of the project has been completed and CCWD intends to move forward promptly with the final stage of the environmental review phase.

III. METHODOLOGICAL DEFICIENCIES IN THE DRAFT EIR/EIS

CCWD is concerned that the Draft EIR/EIS contains numerous methodological and technical flaws which affect the analysis of environmental impacts and, ultimately, the validity of the conclusions reached. To the extent that changes in the methodology or data affect the document's results or conclusions, it may be necessary to recirculate the Draft EIR/EIS for additional review and comment. Following is a description of the document's more significant methodological and technical deficiencies (page references to the Draft EIR/EIS are underscored):

PP. 275-386, Appendix C. In the application of the Fischer Delta Model for alternatives 2, 3, 4, 6, 7 and 8, there was an inadvertent error in the use of the model. The error caused the inadvertent introduction of additional flow into the system model, and resulted in increased outflow and reduced salinities in the alternatives that included the Grant Line Canal barrier. This should be corrected and the alternatives should be analyzed again. Conclusions should be based upon the corrected results.

PP. 303, 317. Model results should not be "adjusted". In the Draft EIR/EIS, some water quality model results are adjusted in an undocumented fashion to eliminate high computed salinity levels. If the salinity results are unacceptable, the flow requirements for the Delta should be adjusted and the Central Valley operations and the Delta salinity should be modeled again.

PP. 275-386, Appendix C. The salinity model and the operations model should use the same consumptive use data for the Delta. The studies used in the Draft EIR/EIS used different consumptive use rates and the outflows are not consistent. A consistent set of data should be used.

The entire 57 years of hydrology should be modeled with the Fischer Model for the preferred alternative to allow a complete and adequate assessment of the project impacts. The use of "representative" years provides an incomplete analysis, and is subject to arbitrary errors depending upon the years selected and the initial conditions chosen (for example, failure to use proper antecedent conditions renders the results of the first several months questionable for some cases). Use of all years will provide proper antecedent conditions in the salinity model and allow a complete statistical analysis of the project effects.

More detailed salinity analysis along the altered flow paths should be provided to allow analysis of impacts along these routes. This includes more detailed analysis along the San Joaquin River and

along Old River. The analysis should allow a determination of the causes of water quality variations (i.e., changes in flow, salinity and salinity gradients) so that an adequate assessment of the effects of the project on the District's present and future water supply (including the Los Vaqueros Project) can be made.

The EIR/EIS should provide an analysis of the project impacts as they relate to the project goals, which include improved water quality. The EIR/EIS should include alternatives in which the project is operated so that it does not degrade water quality, in addition to those which focus on maximizing project water supply yield.

To our knowledge, the Fischer Model has never been calibrated or verified for use in conjunction with SALDIF. This should be done, or another method of generating the boundary condition that has been verified in conjunction with the Fischer Delta Model should be used.

P. xxviii - Possible water quality degradation due to the project is not discussed. These potential impacts must be more thoroughly evaluated as they may cause unacceptable adverse impacts on municipal water supplies.

P. 29. There are a number of intake locations other than Clifton Court that may offer water quality benefits. These are being explored in the environmental review process for the Los Vaqueros Project. Water quality parameters in addition to those mentioned are important and are being considered in the analysis. The statement on the relocation of the Contra Costa Canal is incomplete; the institutional and environmental issues associated with relocation of the Canal should be discussed.

While interconnection with the Contra Costa Canal is a stated project purpose, it is not examined at all. The physical and operational means by which interconnection would occur are not examined, nor are the institutional and contractual arrangements. Alternative intakes are not considered, nor are all water quality parameters. The benefits and costs have not been analyzed. The hydraulic capacity of Clifton Court Forebay and the forebay intake gates on Old River is not addressed with respect to locating the Contra Costa Canal intake or the Los Vaqueros intake on the forebay.

P. 45 The proposed enlargement of the forebay will add storage with a surface area of approximately 3000 acres. The effect of the increased evaporation and loss of water has not been analyzed.

PP. 79-80. Parts of the description of the Contra Costa Water District (including the map) are out of date and should be revised to reflect the current status of CCWD. The discussion of industrial and municipal demands for Contra Costa County as a whole should be clearly separated from the discussion of the CCWD service area.

P. 85ff. Because the proposed project was not modeled separately from the other projects proposed by DWR, it is often difficult, if not impossible, to differentiate the cause of various impacts or benefits. The project alternatives should be analyzed with and without other proposed projects.

P. 97ff. The results and conclusions for the preferred alternative are based on model results that include an inadvertent error. These should be corrected and revised.

P. 98. The discussion concerning THMFP in the proposed forebay enlargement deserves more detailed analysis. The analysis should address increased seepage into adjacent islands and channels caused by flooding Victoria Island, water quality problems that may occur because of the seepage, and a detailed assessment of the dissolution of organic material over time. This assessment is necessary for a full evaluation of project impacts.

P. 99. The water quality degradation found for Barrier Configuration A is not subject to the inadvertent modeling error mentioned previously. These impacts are likely to be found for the other alternatives when the analysis is corrected. The EIR/EIS should evaluate the effects of this degradation on the District's water supply, CCWD's customers, the beneficial uses to which the water is put and the Los Vaqueros Project alternatives. It is expected that Delta water quality standards will be met; the EIR/EIS, however, must assess the effects of the project on water quality as they relate to the No Action alternative, not just the water quality standard.

P. 99ff. There appear to be situations where project alternatives could cause severe water quality degradation in the Delta, and in particular at CCWD's present and proposed intakes. The EIR/EIS recognizes these situations and discusses in a general fashion operational means to provide mitigation and to prevent water quality degradation. The EIR/EIS should include studies of these operational alternatives to reduce or eliminate impacts and they should be included in the project alternative analysis. If the proposed barriers can be operated so that there is no water quality degradation, the operation should be included in the analysis and as part of an alternative.

P. 179. The Draft EIR/EIS fails to adequately discuss the project impacts to CCWD, its customers and the beneficial uses to which the water supplied by CCWD is put. The Draft EIR/EIS has identified impacts for some cases which cause unacceptable adverse impacts to municipal water supplies. Mitigation measures should be included in the Draft EIR/EIS.

P. 190. The Central Valley Regional Water Quality Control Board has recently made measurements of water quality parameters, including toxicity, along the San Joaquin River. The proposed project will redirect the San Joaquin River flows entering the Delta. The EIR/EIS should evaluate the alternatives in light of the CVRWQCB measurements.

P. 192. There are a number of intake locations other than Clifton Court that may offer water quality benefits. These are being explored in the Environmental Review Process for the Los Vaqueros Project. Water quality parameters in addition to those mentioned (such as THMFP and total organic concentrations) are important and are being considered in the analysis.

The statement on the relocation of the Contra Costa Canal is incomplete. While interconnection with the Contra Costa Canal is a stated project purpose, it is not examined at all. The physical and operational means by which interconnection would occur are not examined, nor are the institutional and contractual arrangements. Alternative intakes are not considered, nor are all water quality parameters. The benefits and costs have not been analyzed.

IV. DEFICIENCIES IN THE ANALYSIS AND SCOPE OF THE DRAFT EIR/EIS

- A. The Draft EIR/EIS fails to identify and discuss significant environmental effects of the proposed project.

A Draft EIR/EIS must identify and focus on the possible significant environmental impacts of a proposed project. (Pub. Res. Code § 21000(a); Title 14, Cal. Code Regs. ("Guidelines") § 15126.) The analysis should clearly identify both direct and indirect impacts, as they occur both in the short-term and the long-term. "While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." (Guidelines § 15144.) The Draft EIR/EIS fails to meet these requirements.

1. Unavoidable Significant Impacts.

An EIR must identify any significant impact that cannot be avoided if the project is implemented, including those that can be mitigated but not reduced to a level of insignificance. (Pub. Res. Code § 21100(b); Guidelines § 15126(b)). Where the only means of avoiding such impacts would be to impose an alternative design on a proposed project, but the lead agency nevertheless decides not to require such design changes, the EIR must describe the implications of impacts involved and the agency's reasons for choosing to tolerate them rather than requiring the alternative design. (Guidelines § 15126(b); Pub. Res. Code § 21000(b)). The Draft EIR/EIS fails to meet these requirements in the following respects:

- a) Some project alternatives, including the Preferred Alternative, will result in increased water losses due to evaporation. The Draft EIR/EIS fails to discuss adequately this unavoidable impact.
- b) The project alone and when combined with other proposed projects, may result in reduced Delta outflow. This may reduce the amount of water available to CCWD and its customers from the San Joaquin River. It may also degrade water quality at CCWD's other present and planned future Delta intakes. The Draft EIR/EIS should discuss these impacts, along with DWR contracts that may provide mitigation.

- c) The effects of operational changes that result in increased project yield (made possible by SDWMP physical facilities) have not been adequately analyzed. The impacts on decreased water availability and increased salinity levels at CCWD's intakes, and intakes being considered for the Los Vaqueros Project, must be analyzed. Water quality impact analysis must include an analysis of the impacts on the customers of CCWD, municipal water supplies and the beneficial uses to which water supplied by CCWD is put.
- d) The project is not analyzed by itself under present conditions. This is a serious omission. The Draft EIR/EIS should state the impacts, direct and indirect, of the project. The Draft EIR/EIS water quality analysis compares only the No Action alternative with a combined project including SDWMP, Los Banos Grandes and the Kern Water Bank. The project should be analyzed by itself, showing impacts on water supply and water quality caused by the physical facilities and related operations. If the Department desires to evaluate the impacts of the three projects as an integrated whole, then it is required, under CEQA and NEPA, to define the three projects as a single project. CEQA and NEPA prohibit "piecemealing" of projects.
- e) The draft EIR/EIS states that salinity at Old River at Rock Slough "would increase slightly during the representative dry, below-normal and above-normal and above-normal years, but still remain with Decision 1485 standards." (Draft EIR/EIS, p. 98). The EIR/EIS seems to assume that compliance with D-1485 standards is synonymous with non-significance. This is incorrect. Increased salinity will affect CCWD operations and should be identified as a significant impact. The degradation of the quality of CCWD's water supply by the project will impair the beneficial uses to which the water is put by CCWD's customers. The degradation will cause unacceptable adverse impacts to municipal water supplies.
- f) The degradation of water quality and the reduced supply may adversely affect the Los Vaqueros Project. This has not been addressed in the Draft EIR/EIS.

2. Long-term risks to health and safety.

A joint EIR/EIS must describe the long-term effects of the proposed project, giving special attention to impacts which pose long-term risks to health or safety. The reasons that the proposed project is believed by the sponsor to be justified for immediate implementation should be explained. (Guidelines § 15126(e)).

The Draft EIR/EIS does not adequately discuss the long-term health effects of increased THMFP in drinking water supplies that may result from degraded water quality caused by the project. Nor does it explain why immediate implementation of the project is justified in light of such health risks.

3. Significant, irreversible environmental changes.

A joint EIR/EIS must discuss any significant irreversible environmental changes associated with implementation of the proposed project. (Pub. Res. Code § 21100(f); Guidelines § 15126(f)).

The Draft EIR/EIS does not adequately discuss the irrevocable environmental changes associated with removing some Delta islands from agricultural production.

The Draft EIR/EIS neither discusses nor evaluates the impact on the State's water supply of the irretrievable water loss through evaporation of water stored in the proposed enlarged forebay.

4. Significant cumulative impacts.

An EIR must identify and discuss significant cumulative impacts. (Guidelines § 15130(a). Cumulative impacts are those that are "individually limited but cumulatively considerable." (Pub. Res. Code § 21083(b)). The cumulative impact analysis must contain three elements. First, it must identify related projects through the use of either a project list or a projection approach. (Guidelines § 15130(b)(1)). Second, it must contain a summary of the expected environmental effects to be produced by related projects. (Guidelines § 15130(b)(2)). Finally, it must contain a reasonable analysis of the cumulative impacts of the related projects and an examination of reasonable options for mitigation measures for a proposed project. (Guidelines § 15130(b)(3)).

The Draft EIR/EIS does not adequately discuss the cumulative impacts of the proposed project in combination with other reasonably foreseeable projects in the Delta, particularly the Los Vaqueros Project. Cumulative impacts of all reasonably foreseeable projects must be fully analyzed. How this project will be coordinated with the Los Banos Grandes Reservoir and the North Delta Program must be discussed and the water quality impacts of the combined projects must be analyzed. In addition, an expanded analysis of how the proposed project would be coordinated operationally with the Los Vaqueros Project Alternatives is required.

5. Significant economic and social effects.

While economic and social effects are not considered environmental effects under CEQA, an EIR must identify and discuss economic and social effects when such effects will ultimately result in physical changes. (Guidelines § 15131(a)). The intermediate economic or social changes need not be analyzed in any greater detail than necessary to trace the chain of cause and effect.

The EIR/EIS fails to adequately consider the effects on Delta communities of removing Delta land from agricultural production.

6. Conflicts with Los Vaqueros Project

The EIR/EIS does not adequately address the effect of the SDWMP on CCWD's existing or proposed facilities. The Preferred Alternative of the EIR/EIS would force CCWD to construct the Los Vaqueros Project intake either at Clifton Court Forebay or at an even more costly location than if no modifications were contemplated in the South Delta. The analysis presented in the SDWMP Draft EIR/EIS shows the project would cause a degradation in water quality at CCWD's proposed alternative intake locations as well as at the existing Contra Costa Canal intake. Further, the Draft EIR/EIS does not address increases in pollutant concentrations in Delta waters that may develop from any of the Draft EIR/EIS alternatives presented. These effects would adversely impact the performance of the Los Vaqueros Project and would lower the quality of treated water CCWD delivers to its customers.

CEQA mandates the discussion of foreseeable direct and indirect impacts to the environment. (Public Resources

Code 21001.2, Guidelines 15126(a).) Any of the EIR/EIS alternatives would cause indirect impacts to the environment which must be fully analyzed as a consequence of their operational and physical conflicts with the Los Vaqueros Project. For example, the EIR/EIS must address the indirect effect on the proposed Los Vaqueros Project intake alternatives. A forced move could create significant impacts that would not have otherwise occurred. Second, the EIR/EIS must discuss the impact of the Preferred Alternative decreasing the quality of the water at each of the proposed intake locations for the Los Vaqueros Project as well as at the existing Contra Costa Canal intake.

B. The EIR/EIS fails to adopt legally adequate mitigation measures.

An EIR must identify mitigation measures that could minimize each significant environmental effect. (Guidelines § 15126(c)). Where several mitigation measures are available, each should be discussed and the basis for selection of a particular measure identified. (Id.). Adequate mitigation measures are supported by substantial evidence showing that the measures will be effective. (Laurel Heights Improvement Assoc. v. Regents of the University of California (1988) 47 Cal.3d 376,407).

The Draft EIR/EIS wholly fails to identify mitigation measures adequate to minimize the significant impacts of the project on Delta water quality and the Los Vaqueros Project. As presently proposed, SDWMP would result in the following operational conflicts with the Los Vaqueros Project:

1. The Project could increase salinity at the Rock Slough and at proposed alternative Old River intakes, possibly necessitating a larger reservoir and/or pipelines and pumps, or reducing the performance of the Los Vaqueros Project.
2. The Project could result in a shorter diversion window during some years for the Los Vaqueros Project, necessitating a larger reservoir (for the Los Vaqueros Reservoir Alternative), and/or larger pipelines and

pumps, or reducing the performance of the Los Vaqueros Project.

3. The Project could result in changes in water levels at Los Vaqueros Project intake locations, possibly necessitating reconfiguration of pumping plants or reducing the performance of the Los Vaqueros Project.

The Draft EIR/EIS must contain a detailed mitigation plan to ensure that the project does not significantly affect Delta water quality; that it does not impair the beneficial uses to which the water is put; that it does not adversely affect the users of the water supplied by CCWD; that it does not cause unacceptable adverse impacts on municipal water supplies; and that it does not conflict with the operations of the Los Vaqueros Project.

The document in a number of places (e.g. p. 110) states that barriers would not be operated if they would cause degradation of water quality. The document should identify how it will be determined when the project is degrading water quality, and how the degradation will be reversed.

Since a stated project purpose is to improve water quality, the EIR/EIS should include a discussion of how it will be determined that water quality is in fact improved when the project is completed. This should include a detailed monitoring plan, the methodology for assessing any improvement, and a mitigation plan should the project in fact cause a degradation in water quality.

Not only does the Draft EIR/EIS fail to identify mitigation measures to minimize water quality degradation, but the measures proposed to minimize cumulative impacts are not reasonable and their alleged effectiveness is not supported by substantial evidence.

- C. The Draft EIR/EIS fails to describe and analyze a sufficient range of alternatives to the proposed project and to proposed project operations.

One of an EIR's major functions is to ensure that public agencies thoroughly assess all reasonable alternatives to proposed projects. (Laurel Heights Improvement Ass'n v. Regents of University of California (1988) 47 Cal.3d 376,

400). Consequently, an EIR must describe a range of reasonable alternatives to the project or project location, and must evaluate the comparative merits of the alternatives. (Guidelines § 15126(d)). The number and extent of discussion of alternatives is subject to a "rule of reason." (Citizens For Goleta Valley v. Board of Supervisors, (1990) 52 Cal.3d 553, 565). The discussion of alternatives must focus on alternatives capable of eliminating significant environmental impacts, or reducing them to a less-than-significant level, even if the alternatives are more costly or would impede attainment of project objectives. (Guidelines § 15126(d)(3)). If an EIR concludes that no feasible alternatives to a proposed project exist, the EIR must also discuss the rejected alternatives and the reasons for their rejection in sufficient detail to allow meaningful public review. (Laurel Heights, 47 Cal.3d at 403-406). Reasonable alternatives to the project location, as well as to the project, must also be discussed. (Guidelines § 15126(d); Laurel Heights, 47 Cal.3d at 403).

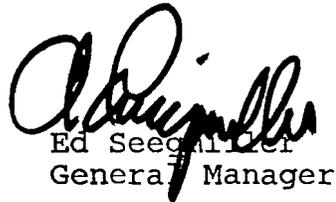
The Draft EIR/EIS fails to consider alternative designs and/or operational arrangements that will reduce or eliminate adverse effects. The document should consider alternative locations for project facilities so that, if feasible, project facilities can be made operationally and physically compatible with CCWD facilities, including the Los Vaqueros Project. These could include alternative intake locations, channel modifications and barrier locations.

Alternative operations of project facilities should also be considered, particularly those that will improve water quality. These could include operations as alluded to in the Draft EIR/EIS (for example, p. 114) or other alternative pumping schemes that will improve water quality. Operational schemes that do not necessarily result in significant changes in project yield but that reduce or eliminate water quality degradation caused by the project should be included in the analysis.

We appreciate your consideration of these comments. We would welcome an opportunity to discuss our concerns with you and would be happy to assist you by providing any information necessary, especially details concerning the Los Vaqueros Project. We look forward to working with you and to reviewing revisions to the EIR/EIS.

Kindest regards,

CONTRA COSTA WATER DISTRICT



Ed Seechurn
General Manager



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February 23, 1996

**U.S. Army Corps of Engineers
Sacramento District
1325 J Street
Sacramento, California 95814-2922
Attn: John N. Reese, Colonel, District Engineer**

**Re: Temporary Barriers Project in the South Sacramento-San Joaquin River
Delta, COE Public Notice Number 199600027 dated January 31, 1996**

Dear Mr. Reese:

This letter and its Appendix set forth the comments of the Contra Costa Water District ("CCWD" or "District") on the application for a Department of the Army Permit for the continuation of the Temporary Barriers Project ("Project") in the South Sacramento-San Joaquin River Delta. The application was submitted by the Department of Water Resources ("DWR") and was announced in COE Public Notice Number 199600027 dated January 31, 1996 ("Application").

The Application and its supporting documents fail to address several potentially significant impacts. The Temporary Barriers Project could:

- 1) Lead to changes in the water quality in the Delta. Whereas the water quality in part of South Delta may improve, water quality in other parts of the Delta could deteriorate by a significant amount.
- 2) Deteriorate the water quality at the District's Los Vaqueros intake at the Old River near Highway 4 crossing and at the Rock Slough intake. The assessment of "No Impact" in item 3h in the Environmental Checklist in "Initial Study" is incorrect. The Project could, under certain hydrological conditions, lead to substantial reduction in the amount of water otherwise available for public (and CCWD customers in particular) water supplies and harm the District's beneficial use of water.

In addition,

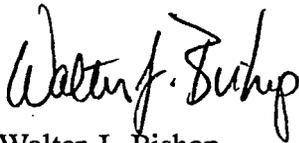
- 3) The proposed period of operation of the barrier at the head of Old River (March 1 to May 31) is considerably longer than the April 15 to May 15 period in the December 15, 1994 Principles of Agreement. Unless exports at Tracy and Banks are curtailed during the entire period of barrier operation (as required in the April 15 to May 15 period in the 1995 WQCP), the extended operation of the head of Old River barrier may have negative impacts on Delta fisheries in the Delta.
- 4) Any increase in Delta contaminant concentrations caused by the Project, especially selenium and diazinon, could have negative impacts on fish and wildlife in the Delta.
- 5) Any changes in water levels that might affect levee stability should be examined in detail.

These comments are discussed in more detail in the Appendix to this letter.

The District requests that the Army Corps of Engineers consider a Permit after a more comprehensive environmental analysis and review are completed, and after practicable and adequate mitigation measures for any adverse impacts are in place. In addition, an oversight committee should be considered to ensure that Project operations are modified or stopped if continued Project operations would lead to significant adverse impacts.

The District appreciates your consideration of these comments. The District would welcome an opportunity to discuss our concerns with you and would be happy to provide any information necessary, especially details concerning the Los Vaqueros Project. Please direct any technical questions to K. T. Shum at (510) 688-8083.

Sincerely,



Walter J. Bishop
General Manager

WJB/KTS

**APPENDIX. DETAILED COMMENTS OF THE CONTRA COSTA WATER DISTRICT
ON THE TEMPORARY BARRIERS PROJECT IN THE SOUTH SACRAMENTO-SAN
JOAQUIN RIVER DELTA.**

This appendix consists of three parts:

- I: Description of existing water system and new facilities under construction of the Contra Costa Water District ("CCWD" or "District").
- II: Detailed discussion of the District's comments on the Temporary Barriers Project ("Project"), COE Public Notice Number 199600027 dated January 31, 1996 ("Application").
- III: Suggestion of other alternatives to meet Project purposes.

I. CCWD OPERATIONS AND FACILITIES

CCWD operates raw water distribution facilities, water treatment plants and treated water distribution facilities. CCWD supplies raw and treated water to Antioch, Concord, Diablo Water District (serving Oakley), Pittsburg, Southern California Water Company (serving Bay Point), Martinez, parts of Pleasant Hill and Walnut Creek. CCWD serves approximately 400,000 people throughout north-central and east Contra Costa County. Its clients also include 10 major industries, 36 smaller industries and businesses, and 50 agricultural users.

The Contra Costa Water District is entirely dependent upon the Delta for its water supply. The Contra Costa Canal system is currently CCWD's principle water supply and delivery system. This system obtains water from unregulated and regulated flows from the Bureau of Reclamation's ("Bureau") Central Valley Project ("CVP") storage releases from Shasta, Folsom, and Trinity Lakes into the Sacramento River. Diversions and rediversions are then made in the Delta to CCWD's system at Rock Slough. Under Water Service Contract I75r-3401 (amended) with the Bureau, CCWD can divert up to 195,000 acre-feet per year ("af/yr") of water from Rock Slough. Currently, CCWD uses between 125,000 and 140,000 af/yr. CCWD can also divert up to 26,780 af/yr of water from Mallard Slough in the Delta Water Rights License No. 3167 and Permit No. 19856). The City of Antioch and Gaylord Container, customers of the District, also have water rights permits in the Delta.

CCWD has obtained its water from the Delta since 1940. Delta water is subject to wide variations in salt and mineral concentrations and this water supply has made CCWD and its customers vulnerable to any man-made or natural sources that could degrade Delta water quality.

Water quality changes in Delta water are noticeable to those who drink the water or use the water in commercial and industrial processes. Degradation in water quality is objectionable to

many CCWD customers, costly to all residential and industrial users, and a health risk for some individuals. Degradation impairs the beneficial uses of water supplied by CCWD.

CCWD is committed to supplying its customers with the highest quality water practicable and providing all reasonable protection of the supply from any known or potential source of hazardous contamination. CCWD Resolution No. 88-45 states in part that:

"CCWD is committed to reducing the concentration of sodium and chloride in the District's water, thereby reducing household and landscape irrigation concerns and industrial and manufacturing costs caused by the fluctuating sodium and chloride level of the District's Delta source...."

In May 1987, CCWD's Board of Directors adopted desired quality objectives for water distributed within its service area. The acceptable levels of sodium and chloride were established at 50 milligrams per liter (mg/l) and 65 mg/l, respectively. In 1988, the voter-constituents of CCWD approved the issuance of bonds to finance a \$450 million water quality and reliability project known as the Los Vaqueros Project. The primary purposes of the Los Vaqueros Project are to improve the quality of water supplied to CCWD customers and minimize seasonal quality changes, and to improve the reliability of the emergency water supply available to CCWD. The Los Vaqueros Project consists of a reservoir with about 100,000 acre-feet of storage, a new point of diversion (at Old River south of the Highway 4 crossing) in conjunction with the current Rock Slough diversion point, associated water conveyance and delivery facilities, pumping plants and other facilities.

On June 2, 1994, the State Water Resources Control Board issued Decision No. 1629 which gives CCWD additional rights to divert and store water for beneficial uses. The State Board subsequently issued Water Rights Permit No. 20749 and 20750 for filling Los Vaqueros Reservoir from the new intake at Old River near Highway 4 and diversion and storage of the water of Kellogg Creek. These rights are in addition to the contractual rights to divert and store water furnished through the Central Valley Project. Construction of the reservoir began in September 1994 and it is expected that diversion from the Old River intake will begin in late 1996 or early 1997. Up to 95,850 af/yr may be diverted for storage between November 1 of each year to June 30 of the succeeding year under Permit No. 20749. To meet the objective of 65 mg/l chloride in its water supply, CCWD will divert when water quality at the Old River intake is below 50 mg/l in chloride concentration.

II. DETAILED DISCUSSION OF THE DISTRICT'S COMMENTS

The following comments are numbered in the same order as those in the letter.

1) Water quality impact in the Delta

The four proposed barriers will significantly alter water circulation in the Delta. Whether operating individually or in combination, these barriers will increase the flow down the San Joaquin River past the head of Old River. This will cause more of the salt, selenium, and other contaminant loads from the San Joaquin River upstream of Vernalis and from agricultural drainage in South Delta to continue down the San Joaquin River. Whereas the water quality in part of South Delta may improve as a result, water quality in other parts of the Delta may deteriorate.

Even though to "provide an adequate agricultural water supply in terms of ... quality ..." is listed as a Project purpose (p.1 of Public Notice), no quantitative estimate of Project impact on water quality in South Delta or elsewhere has been made in the supporting documentation ⁽¹⁾ for the Application. This impact, however, is likely to be significant and could lead to much higher levels of chloride and selenium in the rest of the Delta.

In the November 15, 1995 State Water Resources Control Board Workshop on South Delta Barriers ("Workshop"), the Department of Water Resources ("DWR") presented model results on a closely related Project, the Interim South Delta Program. With permanent flow barriers (which share much of the same characteristics as the temporary barriers) in operation, DWR model results show significant increases in salinity at locations away from South Delta under the simulated hydrological conditions. With the three agricultural barriers in South Delta operating, simulated monthly-average total dissolved solids concentration (TDS) in Turner Cut in July of a critical year increases from 134 mg/l to 197 mg/l, and TDS at the Clifton Court Forebay intake increases from 178 to 189 mg/l. With the two one-way barriers (on Old and Middle Rivers) and the head of Old River barrier operating, simulated monthly average TDS in Turner Cut in May of a critical year (1991) increases from 327 mg/l to 366 mg/l, that in Middle River north of Mildred Island increases from 123 to 217 mg/l, and TDS at the Clifton Court Forebay intake increases from 187 to 225 mg/l. This suggests that the Temporary Barriers Project can have similar significant impacts on water quality outside of South Delta.

(1) Three documents (1995 Initial Study, 1995 Comprehensive Monitoring Report, and 1996 Biological Assessment) have been consulted. The District was not able to obtain the "Interim South Delta Program draft EIR/EIS released in August of 1995" on p.2 of Public Notice.

The Project proponent should examine water quality impacts in detail, especially the impacts at municipal water supply intakes. The study should cover a wide range of hydrologic conditions. (For example the recent EIR/EIS of the District's Los Vaqueros Project examined a 70-year hydrological record, from 1922 to 1991). The study for the Temporary Barriers Project need to first consider the case of a single barrier at the head of Old River (as called for under the December 15, 1994 Principles for Agreement for the April 15 to May 15 period), and then consider the head of Old River barrier in conjunction with the other South Delta barriers. These studies also need to take into account other South Delta improvements that might be planned over the duration of the Permit, such as channel dredging, additional intakes to Clifton Court Forebay, or enlargement of the Clifton Court Forebay. The studies should address the fate of pollutants (including selenium and diazinon) entering the Delta from the San Joaquin River and from South Delta agricultural drainage.

2) Water quality and water supply impact to the Contra Costa Water District

Whether operating singly or in combination, the proposed barriers will increase the flow down the San Joaquin River past the head of Old River. If SWP and CVP exports are not reduced accordingly, there will be a corresponding increase in flow down the Middle and Old Rivers from central Delta towards the export pumps. During dry periods, this new circulation pattern could result in deteriorated water quality in these rivers and degrade the water quality at the District's Los Vaqueros intake on Old River near the Highway 4 crossing and at the Rock Slough intake. A higher chloride concentration would also reduce the amount of water available to the Los Vaqueros Project.

The DWR presentation in the Workshop (discussed under item 1 above) suggests that the magnitude of water quality impact can be large (up to 94 mg/l in the model results presented). No results for the salinity impact at the Los Vaqueros intake or at Rock Slough were made available to the District, but it appears that the salinity increases could be significant.

The assessment of "No Impact" in item 3h in the "Summary of Environmental Impacts" (p.50 in the supporting document "1995 Initial Study" for the Application) is therefore incorrect. The Project may, under certain hydrological conditions, lead to substantial reduction in the amount of water otherwise available for public water supplies and harm the District's beneficial use of water, especially at the District's Los Vaqueros intake. In addition, any increase in chloride at the District's Rock Slough intake when the concentration is otherwise close to the standards imposed by the State Water Resources Control Board would require either release of additional water from upstream reservoirs or curtailment of water use further upstream, in both cases resulting in injuries to water users.

The Project proponent should examine water quality impacts at the District's water intakes in detail and propose adequate and practicable mitigation measures where adverse impacts are identified.

3) Fishery impact due to extended operation of the head of Old River barrier

In the December 15, 1994 Principles for Agreement, the head of Old River barrier was to operate in the spring for only a one month period, from April 15 to May 15. Its operation was to be concurrent with a reduction in export pumping at Tracy and Banks (to an amount not to exceed the San Joaquin River inflow). This export reduction was to limit the flow from Central Delta to the export pumps and was designed to protect fisheries in the Delta, including migrating salmon smolts.

The period of operation of the barrier at the head of Old River is from March 1 to May 31 in the Application. Unless export pumping at Tracy and Banks are reduced during this entire period (as is during the period April 15 to May 15 in the WQCP), the extended operation of the head of Old River barrier may negatively impact Delta smelt and other fisheries in the Delta.

4) Fish and wildlife impact due to increased contaminant concentrations in the Delta

The redistribution of agricultural drainage may lead to elevated selenium and diazinon concentrations in the rearing habitats in Central Delta. This could have significant impacts on aquatic species throughout the Delta. The Project proponent should examine the effects of elevated selenium, diazinon, and other contaminant concentrations on fish and wildlife, and in particular through negative impacts on the populations of phytoplankton and zooplankton which constitute the bottom of the food chain. Any further decline in fishery populations might also result in eventual reductions in the amount of water otherwise available for public water supplies in the future.

5) Impact on stage in Old River

Changes in the mean and/or maximum water level in the Old River may affect levee stability at the District's Los Vaqueros intake and impact the construction of the District's Old River intake and the schedule and operation of the Los Vaqueros Project. Estimates on water level changes due to the Project should be made.

The two practical purpose of the Projects, to "Protect San Joaquin River salmon migrating through the delta" and to "Provide an adequate agricultural water supply in terms of quantity, quality and channel water levels to meet the reasonable and beneficial needs of water users located within South Delta Water Agency" can be accomplished by separate tools. Salmon

protection can be effectively accomplished by the head of Old River Barrier alone. With regard to the other Project purpose, water quality objectives can be met by source reduction measures, which can also be used to mitigate the impacts of the head of Old River barrier. This means of mitigation would be consistent with the goals of the CALFED Bay-Delta process, the CVPIA implementation, and the efforts of the State Water Resources Control Board and the Central Valley Regional Water Quality Control Board. Measures to maintain water quality standards and water levels in South Delta should not lead to significant impacts at other locations in the Delta. The measure of success should be evaluated over the entire Sacramento/San Joaquin River Delta and not be limited to just within South Delta. Water quality problem at one location should not be solved at the expense of water quality degradation at other locations.

In view of the significant impacts each one of the barriers could have on the Delta, it would be prudent, and necessary, to consider the detailed effects of each one of these measures individually before formulating the best possible combination to achieve maximum benefits to the Sacramento/San Joaquin River Delta.

III. POTENTIAL ALTERNATIVES TO ACCOMPLISH PROJECT OBJECTIVES

Whereas the spring installation (mid April to mid May) of the head of Old River barrier coupled with an export pumping reduction is an effective measure to protect salmon migration, the District does not believe that the proposed barriers are the best or only means to accomplish the Project objective of improving water level and water quality in South Delta. This section describes some other possibilities that may be considered.

Source control should be a major component of any efforts to meet water quality objectives in channels with salt load predominately coming from agricultural drainage. Additional measures should be limited to those that would change the circulation pattern only in the South Delta channels. Increasing the flow down the San Joaquin River past the head of Old River without a corresponding reduction in export pumping will likely lead to more flow from Central Delta to the export pumps through Middle and Old Rivers. This change in circulation could lead to higher salinity at CCWD's intakes due to the salt load from the San Joaquin Valley, the South Delta, and the ocean.

The following measures may be considered:

1. Source Control

Source control on salt load would be the most direct and efficient measure to reduce salinity and meet water quality objectives in the 1995 WQCP. The District believes that South Delta salinity problems should also be addressed through reductions in the amount

of salt and pollutants drained from South Delta and the San Joaquin Valley. This could be achieved through source reduction through irrigation and drainage practices and land retirement, and in-Valley physical solutions. CCWD believes there has been extensive scientific work on drainage problems in the past two decades which should be used to the fullest feasible extent in evaluating drainage issues. Drainage reductions should be considered as a mitigation measure to ensure the new circulation pattern due to barriers does not result in increases in salinity at other locations.

2. Coordinated intermittent operations of the flow gates to minimize changes in the circulation pattern in the Delta

By timing the opening and closing of the gates over the course of a tidal day, flows in South Delta channels may be altered in a way that improves water levels without significantly changing flow and salinity in channels outside of the South Delta.

3. Operation of only one one-way flow barrier, to be installed on the Middle River near Trapper Slough

Fischer Delta Model simulations suggest that water levels in the Old River and Grant Line Canal are changed by less than 0.3 feet when the barrier at the head of Old River is in place. It may therefore be possible to have fewer than three agricultural barriers to mitigate for the impacts due to the head of Old River barrier.

A single one-way flow barrier on the Middle River near Trapper Slough would elevate the water level in the stretch of the Middle River upstream, both with or without the barrier at the head of Old River. At the same time, circulation in the south Delta channels will be promoted (from Middle River to Grant Line Canal and Old River) with much less disruption to the overall flow pattern in the Sacramento/San Joaquin River Delta.

4. Replace the flow barriers by weirs

Replacing the flow barriers by weirs may have a less dramatic effect on the flow pattern in the Delta while still maintaining water levels in the South Delta.



**CONTRA COSTA
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April 19, 1996

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P.O. Box 942836
Sacramento, CA 94236-0001
Attn: Curt Schmutte

**Subject: Temporary Barriers Project in the South Sacramento - San Joaquin
River Delta**

Dear Ms. Schaffer/Mr. Schmutte:

The Contra Costa Water District ("CCWD" or "District") appreciates the opportunity to review the responses ("Responses to Comments" or "Responses") of the California Department of Water Resources ("DWR") to the District's comments on the Temporary Barriers Project ("Project") in the South Sacramento-San Joaquin River Delta. The District submitted the original comments in response to COE Public Notice Number 199600027 dated January 31, 1996 (Walter J. Bishop to John N. Reese, letter dated February 23, 1996, referred to henceforth as "Comment Letter").

The District finds that the District's concerns have not been addressed. In the two issues of most concern to the District; Water Quality and Water Supply, either the magnitude of the potential impact or the issue of concern itself were not addressed. The main deficiencies in the Responses are discussed below.

1. Water Quality Impacts to the District

In response to the District's concerns on the potential water quality degradation at the District's intakes due to the agricultural barriers, the severity of these impacts were discussed as "not significant" (p.1 in Responses to Comments), but no quantitative estimates were presented to support this assertion.

In the District's February 23 Comment Letter, the District cited results from DWR'S model simulations showing large salinity increases of 50 mg/l or more¹ (page A-3 in Comment Letter). The corresponding salinity increase at the District's intakes may also be substantial. A change in water quality of this magnitude cannot be considered insignificant.

It was further asserted that "the Department (DWR) does not agree that there may be significant impacts to CCWD's water quality at either the Rock Slough or Los Vaqueros intake" because "all applicable Delta standards ... protecting municipal diverters in the Delta ... will continue to be met" (p. 1 in Responses to Comments). This appears to suggest that degradation in water quality in the Delta is acceptable as long as water quality standards are met and contradicts the purposes of the proposed program, one of which is to improve water quality. Such a position also contradicts ongoing efforts by the State Water Resources Control Board, by the CALFED process, and by water users to improve water quality in the Delta. It is also directly contrary to both state and federal antidegradation policies.

2. Water Supply Impacts to the District

The District pointed out that a higher chloride concentration caused by the Project would reduce the amount of water available to CCWD through the Los Vaqueros Project (page A-4 in Comment Letter). One of the primary purposes of the Los Vaqueros Project is to improve the quality of water supplied to CCWD customer. Any increase in chloride concentration at the District's Old River intake will reduce the amount of water otherwise available to the Los Vaqueros Project. This potential impact was not addressed in the Responses to Comments.²

Furthermore, a higher chloride concentration in Los Vaqueros water caused by the Temporary Barriers Project would require more of this Los Vaqueros water to be used to blend with water diverted from Rock Slough to achieve the District's water quality goals. Similarly, a higher chloride concentration in Rock Slough caused by the Temporary Barriers Project would also require more blending water from Los Vaqueros to meet water quality objectives. In both cases, the performance of the Los Vaqueros Project could be reduced as a result, resulting in significant direct and indirect costs to the District and its customers. Those impacts have not been addressed, nor has mitigation been proposed.

3. Increased loads and concentrations of toxins in the Delta

There is a failure to respond to the District's concern on increased contaminant concentrations on fish and wildlife (item 4 on p. A-5 in Comment Letter. The response (p. 10 in Responses) ignored the content of the District's comment:

"The redistribution of agricultural drainage may lead to elevated selenium and diazinon concentrations in the rearing habitats in Central Delta." (beginning of paragraph in which CCWD's comment was quoted, p. A-5 in Comment Letter.) When the barriers are in place, a higher percentage of the agricultural drainage originating from the San Joaquin River upstream of Vernalis will continue to move down to Central Delta (along the San Joaquin River and past the head of Old River). This increased pollutant load, in combination with those originating from South Delta, will lead to elevated levels of contaminants in the Central Delta.

To examine whether a "hypothesis" that the TBP will cause elevated levels of these contaminants (p.11 in Responses), project proponents should apply the same numerical model simulation they used in obtaining the estimates of elevated salinity in Central Delta (discussed above under item 1. Water Quality Impacts to the District) to follow the fate of contaminants such as selenium coming into the Delta from Vernalis, under with and without Project conditions. Impacts resulting from circulation changes that result in additional pollutant loading of selenium and pesticides in the Central Delta must be addressed and mitigation measures must be proposed.

The responses indicates the project proponents are unaware of levels of diazinon or other pollutants above those thought to negatively impact fish and wildlife. The project proponents should contact the USGS and the Central Valley Regional Water Quality Control Board for data which show levels that are clearly detrimental to fish and wildlife.

4. Potential Impacts to **all** Water Users

The District would like to reiterate a comment that has not been addressed in the Responses. DWR assumed that the State Water Project ("SWP") and the Central Valley Project ("CVP") would always be operated to comply with all applicable Delta standards (p.1 in Responses to Comments). This appears to suggest that there are no "third-party impacts" as a consequence. However, water needed to meet water quality standards in the 1995 Water Quality Control Plan may no longer be provided entirely by SWP and CVP in the near future. Ongoing water rights proceedings at the State Water Resources Control Board will likely result in reallocation of this water need to **all** water users. Increased water need due to the Project will therefore impact all water users. The District has pointed this out in the bottom paragraph on page A-4 in Comment Letter, but this has not been addressed in the Responses.

The District requests that its concerns be adequately addressed before the Project proceeds. The District's concerns about water quality and water supply impacts

Ms. Karen Schaffer/Mr. Curt Schmutte
April 19, 1996
Page 4

cannot be dismissed as insignificant unless reliable quantitative estimates indicating insignificant Project impacts are presented and/or appropriate mitigation measures are adopted.

The District would welcome an opportunity to discuss further with you on this Project. Please contact Dr. K. T. Shum at (688-8083) for further details on these and other comments).

Sincerely,



Gregory Gartrell
Director of Planning

GG/cpc

¹ For example, monthly mean total dissolved solids concentration ("TDS) in Turner Cut in July of a critical year was shown in DWR's results to increase from 134 mg/1 under no project conditions to 197 mg/1 when the three agricultural barriers are operating. This represents an increase of 63 mg/1 or 47%.

² It was asserted that "CCWD will be able to divert water in the same quantities as it has in the past (p.15 in Responses) and did not address the Project's potential impacts to the Los Vaqueros Reservoir operations."