

# The Bay Institute *of San Francisco*

BOARD OF DIRECTORS

March 7, 1995

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Thomas R. Howard, Chief

Bay-Delta Unit

Arthur Brunwasser

State Water Resources Control Board

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Joe Nation

Re: Draft Environmental Report (Appendix to Draft  
Water Quality Control Plan for the San Francisco  
Bay/Sacramento-San Joaquin Delta Estuary)

John T. Racanelli

Will Siri

Dear Mr. Howard,

Felix E. Smith

This letter is submitted as the comments of The Bay Institute of San Francisco on the December 1994 Draft Environmental Report (Draft ER), Appendix to Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary (Draft WQCP).

Nancy C. Swadesh

Executive Director

These comments do not constitute a complete factual review and analysis of the Draft ER. They are solely intended to address specific components of the Draft ER which are of particular interest or concern.

David Behar

V-1 -- General Causes of Decline

Section A reviews eight factors described as general causes of the decline of aquatic resources of the Bay/Delta estuary. We believe this section is inaccurate and misleading for the following reasons.

Two of the listed factors (natural variability of precipitation and hydrology; oceanic conditions) are incorrectly described as factors contributing to the long-term general decline of aquatic resources. While these factors certainly influence population levels and ecosystem function from year to year, their effects merely contribute to what would be considered natural variability in populations and ecosystems, rather than long-term population trends, which is the proper subject of this section. Estuary-dependent resources of the Bay/Delta ecosystem have evolved under the highly variable conditions characteristic of estuaries in general and the Bay/Delta in particular.

Substantial variability in precipitation and oceanic productivity may in fact have greatly contributed to the biological diversity of the Bay/Delta community, and to the vigor of certain populations. There is no reason or scientific evidence to suggest that either of these factors is responsible for, or have contributed to, long-term declines in Bay/Delta species.

With the exception of harvesting, the remaining factors are directly connected. Water development, land reclamation and waterway development have severely altered the natural hydrology of the Bay/Delta system, and are in themselves undoubtedly the primary causes of general decline in the ecological integrity of the system. In addition, these alterations have, in conjunction with ongoing land use practices, led directly to severe alterations of water chemistry (pollution), food webs (food limitation), and a vastly increased susceptibility to invasion by exotic species. Healthy ecosystems are generally highly resistant to invasion by exotics. Invasion by exotic species should therefore be properly viewed as a result of ecosystem disturbance, rather than a cause.

For these reasons, this section should be revised to more accurately reflect the best scientific information regarding the general causes of decline of Bay/Delta aquatic resources. A more realistic scheme would involve three, rather than eight, listed factors:

1. Water development (including waterway modification)
2. Land use practices (including land reclamation and pollution)
3. Harvesting

#### XIII-24 -- Aquatic Resource Model Results

Despite the caveat that "these regression equations have limited predictive ability," the inclusion of aquatic resource model results in this subsection implicitly suggests that those results and the models used to obtain them represent the "best science" available. The population models used to produce these results are generally based on incomplete data, and incorporate numerous unverified assumptions. Much of the scientific community would likely disagree with any attempts to use such crudely derived models as quantitative management tools. There are simply too many factors, and too many unknowns regarding the interactions between these factors, that affect population levels of the species discussed to predict population changes resulting from variation in any single factor. We recommend that the text of "b. Aquatic resource model results" (VIII-24 to 31) be omitted, and that the discussion be limited to the more general qualitative analysis presented on pages VIII-15 to 24.

#### IX -- Recommendations To Other Agencies

This chapter should be retitled "Recommended Actions" and include a new section A, "Additional Actions by the State Water Resources Control Board." The new section A would, among other items, specifically discuss implementation of narrative water quality objectives for Salmon

Protection and Brackish Tidal Marshes of Suisun Bay. See our more detailed comments of February 22, 1995, on the Draft WQCP, page 9.

IX-1 -- Recommendations to Achieve Water Quality Objectives

Under the proposed section A, "Additional Actions by the State Water Resources Control Board," the role and responsibility of the State Board and the Central Valley Regional Water Quality Control Board in helping to achieve implementation of the San Joaquin Valley Drainage Program through adoption of waste load allocations for discharge to the San Joaquin River, goals for salt-load reduction programs and other measures, should be more specifically addressed.

IX-14 -- Suisun Marsh Improvements

This subsection should be revised per the discussion in: Comments of The Bay Institute on Draft WQCP (February 22, 1995), page 9. The revised portions of this subsection should be placed in the proposed section A, "Additional Actions by the State Water Resources Control Board."

X-10,11 -- Offstream Storage Projects

We believe that the Draft WQCP, in conjunction with associated state, federal and voluntary initiatives, establishes a minimum level of interim protection for biological resources under current conditions of storage and withdrawal capacity in the Bay/Delta system. Any significant changes in the ability to store or divert water diverted from the estuary, such as construction of the proposed Los Banos Grandes Reservoir, would necessitate review and revision of the requirements of the Draft WQCP. Such changes will be more appropriately considered under the identification and analysis of alternatives in the long-term process discussed in section J (X-11,12).

X-11,12 -- Long-Term Delta Solution

We appreciate that "(t)he SWRCB recognizes that a long-term solution to the Delta problems is necessary to ensure ... full protection of the beneficial uses of the waters of the Bay-Delta estuary." To assist in that process, it is imperative that the Board set the scope for the long-term solution finding process and other efforts by recognizing its ongoing public trust and statutory obligations to regulate salinity, flow and diversions in order to provide more complete protection of those beneficial uses than provided by the Draft WQCP and in order to implement the narrative water quality objectives contained in that plan, and also by renewing its commitment to the goal of fully offsetting the impacts of the state and federal water projects it established in Water Right Decision 1485 (as modified by the Racanelli decision's charge to consider non-project users). For a more detailed discussion, see our February 22, 1995, comments on the Draft WQCP, pages 2-3.

#### XI-29 -- Rationale for Selection of Preferred Alternative

Because it provides a significant improvement over existing conditions in the estuary during the critical February-June period, the Board may find that the set of objectives in Alternative 5 provides the most reasonable interim level of protection of the aquatic resources among the alternatives it considered. It may not, however, find that adoption of this interim set of objectives therefore discharges its obligations under state and federal water quality statutes and the public trust to provide full protection of beneficial uses of the estuary's waters through regulation of salinity, flow and diversions. Such a finding would necessitate a more explicit delineation of goals for protection and restoration of public trust values, a more thorough analysis of environmental, social and economic factors affecting those values, and a more exhaustive examination of water management and supply alternatives for competing demands on the estuary's waters, and accordingly a more stringent set of water quality objectives and operational requirements, than contained in the Draft WQCP and the Draft ER.

#### Chapter XIII -- Effects of Preferred Alternative on Special Status Species

We offer two general comments on the approach taken in this chapter. First, we agree that the various fish and wildlife species occurring in Suisun Marsh and the brackish tidal wetlands of Suisun Bay are not likely to be adversely affected by the conditions of decreased salinities and increased freshwater flows during the February through June period required in the Draft WQCP, and are indeed generally expected to benefit from these conditions. Potential impacts on these species from the adoption of deficiency objectives for salinity in the western Marsh relative to the nondeficiency objectives is unknown, however, and assessment of those potential impacts by a Suisun Marsh Ecological Work Group should be required by the Board (see our February 22, 1994 comments on the Draft WQCP, page 9).

Second, adverse impacts of the Draft WQCP's direct operational requirements on spring-run chinook salmon and other anadromous fish species using the estuary during the November through January period could be substantial, absent other mitigation measures. Although the plan's requirements may represent a "regulatory" improvement over the absence of comparable requirements for this period in D-1485, the actual levels of export and associated water quality conditions that may occur under these new requirements of the Draft WQCP in and of themselves could result in some cases in conditions more adverse to anadromous fish than those historically experienced under the D-1485 regime -- during which the precipitous declines of these resources occurred. In order to achieve a finding of no adverse impact to these species, therefore, the Draft ER should include under its description of proposed measures the following:

- o Timely development of a program to implement the narrative water quality objective for Salmon Protection.
- o Exercise of operational flexibility to vary export criteria in order to increase biological protection of special status species.

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o Monitoring and research programs designed to better identify needs of special status species during the November-January period.

o Implementation of other state, federal and voluntary initiatives, including components of the Central Valley Project Improvement Act and the Category III habitat improvement program, which enhance conditions for special status species.

Please contact me at (415) 721-7680 if you have any questions regarding these comments.

Sincerely,



Gary Bobker  
Policy Analyst

cc: interested parties