

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

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July 1, 1998

Lester Snow, Executive Director
CALFED Program
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Subject: CALFED draft Programmatic Environmental Impact Statement/Report

Dear Mr. Snow:

I am writing to provide the comments of the San Francisco Bay Conservation and Development Commission (Commission) on the CALFED Bay-Delta Program draft Programmatic Environmental Impact /Statement Environmental Impact Report (EIS/R). The Commission considered and approved these comments at their June 5, 1998 meeting. These Commission comments are based on the Commission's law, the McAteer-Petris Act and the Suisun Marsh Preservation Act, the Federal Coastal Zone Management Act (CZMA), and the *San Francisco Bay* and the *Suisun Marsh Protection Plan*, which are part of the Commission's federally-approved management plan for San Francisco Bay.

As you know, the Commission's area of jurisdiction includes all tidal areas of the Bay and the "shoreline band," which extends 100 feet inland from the Bay jurisdiction. The Commission also has jurisdiction over the Suisun Marsh and other managed wetlands adjacent to the Bay, salt ponds, and certain waterways. Most activities conducted within the Commission's jurisdiction require Commission permits. In addition to any needed permits under its state authority, federal activities that affect the Commission's jurisdiction, including licenses, grants, and permits, are subject to consistency review by the Commission, pursuant to the federal CZMA, for their compliance with the Commission's federally-approved coastal management program for the Bay.

The Commission is commenting on the EIS/R because actions to implement the alternative chosen by CALFED will likely affect the coastal zone and also result in work in the Commission's jurisdiction. Consequently, as correctly stated in Section 11.2.5 of the EIS/R, CALFED will need to submit a Consistency Determination to the Commission under the federal Coastal Zone Management Act for the adopted CALFED alternative. Work in the Commission's jurisdiction will require Commission permits.

Commission Policies and Past Comments. The Commission has adopted policies in its Bay and Suisun Marsh Plans addressing freshwater inflow from the Delta. The Bay Plan policies state:

1. Diversions of fresh water should not reduce the inflow into the Bay to the point of damaging the oxygen content of the Bay, the flushing of the Bay, or the ability of the Bay to support existing wildlife.
2. High priority should be given to the preservation of Suisun Marsh through adequate protective measures including maintenance of fresh water inflows.
3. The impact of diversions of fresh water inflow into the Bay should be monitored by the State Water Resources Control Board, which should set standards to restore historical levels (1922-1967) of fish and wildlife resources. The Bay Commission

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should cooperate with the State Board and others to ensure that adequate fresh water inflows to protect the Bay are made available.

The Suisun Marsh Plan policies state:

1. Neither the extent of increased salinity intrusion nor the potential for violation of State and Federal water quality standards due to the combined effect of the proposed John F. Baldwin Ship Channel and increased diversions for the State Water Project and Central Valley project is now known. Until the combined, as well as individual, environmental impacts are known, and mitigation assured for adverse impacts, (a) the channel should not be dredged, and (b) there should be no increase in diversions by State or Federal Governments that would cause violations of existing Delta Decision or Basin Plan standards.
2. Adequate supplies of fresh water are essential to the maintenance of water quality in the Suisun Marsh. Therefore, the State should have the authority to require the Bureau of Reclamation to comply with State and Federal water quality standards for the Delta and the Marsh. This should be accomplished through Federal legislation if necessary.
4. Water quality standards in the Marsh should be met by maintaining adequate inflows from the Delta. Fresh water from projects designed to import or redistribute fresh water in the Marsh, and therefore to compensate for reduced inflow from the Delta should not be used unless it is established that the importation or redistribution of water will not have a significant adverse impact on the Marsh. The Commission has commented previously on various state policy actions regarding water diversions, most notably:

The Water Quality Control Plan for Salinity for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; commented at SWRCB hearings in July, September, and October, 1987 and again in August, 1995 regarding the shortcomings of the proposed water quality plan in regards to regulating water diversions and proposed improvements to better ensure protection of the Commission's resources.

The Draft Water Quality Control Plan for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary; comments to the SWRCB dated February 22, 1995 regarding water diversions and the improved protections proposed in the 1995 plan and provided recommendations to strengthen the plan's protection of Bay and Suisun Marsh resources.

Impacts of the Alternatives. The EIS/R states that none of the alternatives would result in significant adverse impacts that cannot be mitigated. Many of the potential impacts identified would occur within areas outside the Commission's jurisdiction, mainly in the southern Delta. Many of the programmatic actions would have a beneficial effect, for example as result of ecosystem restoration projects or through decreases in "reverse flows" in the Delta now caused by operation of diversion pumps.

The EIS/R does mention several potential adverse impacts to resources within the Commission's jurisdiction. Although it concludes that these impacts are modest to insignificant and could all be mitigated, the Commission believes that greater analysis should be presented in the revised EIS/R to support these conclusions as described below.

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Commission Comments. The Commission has identified the following seven main issues raised by the EIS/R:

1. Entrapment Zone. The potential impacts to the Commission's jurisdiction of greatest concern would result from decreases in Delta outflow to the Bay that could affect the distribution of salinity within the Bay and move the location of the "entrapment zone." The entrapment zone is an area of high biological productivity that is found where the freshwater flowing through the Delta from upstream rivers meets the salt water of the Bay. The location of the entrapment zone is most beneficial when it is located in large, shallow embayments, such as the Suisun Bay, and is the least beneficial when it is confined within narrower and deeper channels, such as are found within the Delta.

The location of the entrapment zone varies both from the effects of the tides, which vary its location about 10 to 20 kilometers, and also due to the magnitude of Delta outflow, which, in low flow conditions, depends mainly on the magnitude of releases from upstream storage facilities and water diversions. The SWRCB's 1995 Water Quality Control Plan requires Delta outflows to be maintained at levels intended to keep the entrapment zone from moving from within Suisun Bay up into the Delta (the location of the entrapment zone is referred to in the standards and the EIS/R as "X2"). However, the standards vary based on the water-year and in dry water-years would allow the entrapment zone to shift towards the Delta.

The EIS/R states that all the alternatives would shift the location of the entrapment zone towards the Delta, but only on the order of several kilometers. Alternative 3 would result in the greatest potential shift of the entrapment zone towards the Delta, on the order of 1 to 7 kilometers. It is unclear whether and how long the entrapment zone would be shifted from Suisun Bay into the Delta under any of the alternatives. However, the EIS/R states that this impact is not significant in relation to the existing tidal variation.

In addition, the EIS/R states that the facilities constructed under each of the alternatives could be operated so as to meet the X2 standards for inflow to the Bay, mainly through increased discharge from water storage facilities during low flow periods.

The Commission believes that the document should clarify whether any of the alternatives would increase the percentage of the time that the entrapment zone moves from Suisun Bay up into the Delta and provide more detailed analysis of the impact of the resulting biological impacts, if any, on San Francisco Bay and the Suisun Marsh during various times of the year and during various water years. Specific mitigation measures should be suggested if there are significant impacts.

2. Salinity. A second potential impact to the Bay and Suisun Marsh would result from changes to the average salinity patterns in the Bay. Presently, the tidal marshes in Suisun Bay are brackish. However, if Delta outflows are decreased, allowing salty Bay waters to push farther upstream, then many of these brackish wetlands could be transformed into salt marsh. Although salt marshes provide valuable habitat, brackish tidal wetlands are also a scarce habitat type in the Bay. Migrating waterfowl along the Pacific Flyway use these brackish wetlands and their value to waterfowl likely would be reduced if they became salt marshes.

Alternatives 2 and 3 would increase salinity of waters in the western Delta at Emmaton and, by extension, in Suisun Bay. Alternative 3 would result in the greatest impact, substantially increasing salinity, with the greatest impacts in summer and fall. However, the Commission's staff could not find in the EIS/R an analysis of potential salinity changes to tidal marshes in Suisun Bay resulting from any of the alternatives, but the EIR/S concludes that no significant unavoidable adverse impacts were identified for Bay wetlands and wildlife. It further finds that ecosystem restoration projects as part of

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CALFED would likely result in a beneficial impact to Bay wetlands and wildlife. It is unclear whether significant changes in Suisun marshes would occur and whether CALFED ecosystem restoration projects would offset any conversion of the brackish water marshes to salt marsh.

The Commission believes that the document should clarify whether any of the alternatives would significantly increase the salinity of tidal marshes in Suisun Bay and the managed wetlands of Suisun Marsh and provide more detailed analysis of the resulting biological impacts, if any, during various times of the year and during various water years. Specific mitigation measures should be suggested if there are significant impacts.

3. Peak Flows. A third potential impact involves reduction of peak flows. Peak flows, for example during spring runoff, are beneficial to the Bay system by improving water quality and supporting Bay ecological functions that are dependent on peak flows. The increased storage facilities proposed as part of the alternatives would be used to capture a greater percentage of the unregulated high flows through the system. This would result in a reduction of the frequency, intensity and/or duration of peak flows. It is unclear what impact this reduction would have, if any, on the biological health of the Bay.

The Commission believes that the document should clarify the impacts, if any, of the alternatives on peak flows to the Bay and provide more detailed analysis of the resulting water quality and biological impacts, if any, during various times of the year and during various water years. Specific mitigation measures should be suggested if there are significant impacts.

4. New Flow Standards. The Ecosystem Restoration component includes discussion of the benefits of providing adequate peak and average flows to support Bay-Delta resources. The Commission agrees with this need and suggests that the revised EIS/R should expand the qualitative presentation into a more quantitative analysis of the high, average, and minimum flows needed to restore and maintain Bay resources. For example, higher inflows than mandated under the X2 standard may significantly improve the health and productivity of the Bay. These Ecosystem Restoration flow levels should then be used for evaluating the alternatives and for setting future flow standards. These new flow standards would then be a basic component of the program and CALFED would not need to address them as mitigation measures for impacts of the program.

5. Water Use Efficiency. It is unclear in the EIS/R whether the projected increase in water consumption must be accommodated, at least in part, by increased storage and transport facilities. Enhanced water use efficiency is one of the common programs of the alternatives. Greater levels of water use efficiency, if achievable, would be beneficial in that they would reduce the need to divert water and thereby allow larger average Bay inflows without reducing peak flows. However, it seems at least implicit in the document that water efficiency measures, such as greater reliance on water reclamation, conjunctive use of water, conservation of agricultural and urban water, retirement of marginal agricultural lands and/or shifts away from low value crops that are water-intensive, cannot by themselves provide enough water savings to provide for both environmental and consumptive water uses in the future. The EIS/R should clarify whether the increased consumption needs could be offset largely or entirely by greater water-use efficiency. If so, a new alternative should be evaluated that assumes the level of water demand for consumptive uses will increase a smaller amount or not increase at all.

6. Assurances. The protection of Bay resources depends on assurances that whatever facilities are constructed will be operated to provide adequate peak, average and minimum flows to the Bay. The provision of such assurances is another of the common programs of the CALFED alternatives.

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However, the discussion of assurances in the DEIS/R, while acknowledging the need for and presenting potential methods to provide assurances, does not propose specific proposals or commitments. The Commission believes that the provision of adequate assurances is a critical component that must be addressed prior to choosing and implementing major new facilities to store and divert water. For example, as mentioned above, permanent standards for minimum, average, and pulse freshwater flows should be established for inflow to the Bay in order to protect and preserve Bay resources.

The Commission believes that ecosystem restoration efforts should be proven to be successful, and adequate assurances should be implemented, prior to constructing storage and conveyance facilities to expand diversions. The EIR/S should present and analyze, as part of the alternatives, specific mixes of assurances. In particular, the EIS/R should consider phased implementation of new storage and conveyance facilities, if and when determined necessary. The phases would consist of the following:

- The first phase would develop upstream storage for environmental purposes.
- The second phase would develop off stream storage south of the pumping plants to provide water supply reliability.
- The last phase would develop conveyance facilities once these are determined to be necessary for ecosystem restoration or, if they are the only feasible alternative, to protect water quality and water supply reliability. A cap on water exports should be considered as one alternative CALFED assurance.

7. Ecosystem Restoration. CALFED funding for ecosystem restoration projects has so far been largely limited to the Delta, with relatively few projects funded in the San Francisco Bay or Suisun Marsh. The Commission believes that CALFED should expand its "solution area" for ecosystem restoration funding to encompass the entire Bay and adequate funding should be provided for deserving projects throughout the entire Bay-Delta region. Additionally, a conceptual model based on the restoration needs and stressors throughout the Bay-Delta system should be established to provide a clearer rationale for allocating ecosystem restoration funds. The model could then be used to define performance criteria to evaluate the effectiveness of and adaptively manage the funding program. The EIS/R should evaluate these suggestions.

8. Dredged Material Reuse. The EIR/S mentions the potential benefits of using dredged material to help restore wetland habitat in subsided areas. The Commission believes that this potential linkage to the Long Term Management Strategy (LTMS) program for Bay dredged material should be explored in greater detail. Although several demonstration projects involving Delta levee stabilization using Bay dredged material have been conducted in association with the LTMS, the lack of adequate resources to address salinity, water quality and funding issues associated with reusing Bay dredged material in the Delta have hampered further such projects. The EIR/S should include and analyze a dredged material reuse program in the Delta using Bay and Delta materials as part of the alternatives.

9. Water Quality Program. The impact and control of ongoing waste discharges plays a fundamental role in restoring and maintaining the health of the to the Bay/Delta system. The programmatic measures included in the CALFED Water Quality Program are a good start at identifying the issues that must be addressed in CALFED implementation. The revised EIS/R should clarify how these measures will be implemented as part of CALFED and how assurances will be provided that these measures will be better defined, prioritized and implemented.

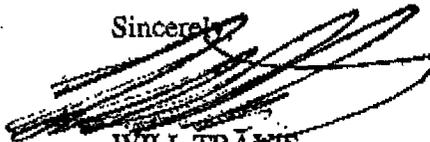
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Conclusion. The EIR/S is an ambitious effort that should be improved to provide a sound basis for assessing and choosing the best mix of actions to manage the Bay-Delta system. In summary, the Commission believes that the revised EIR/S should address the following topics in greater detail:

- Provide more detailed analysis of the impacts of increased water diversions including potential impacts to tidal marshes in Suisun Bay from increasing salinity, whether the shifting of the entrapment zone from Suisun Bay towards the Delta would be significant, and effects on pulse flows. Mitigation should be identified for any identified impacts.
- Analyze whether greater water use efficiency than assumed in the EIS/R is achievable and whether it could offset increased water consumption needs.
- Ensure that ecosystem restoration funding encompasses the entire Bay-Delta system and that distribution is based on a clear conceptual plan. Flow levels to support ecosystem restoration should be quantified and used as the basis for new flow standards and for evaluating the alternatives.
- Analyze and, if feasible, propose a plan to implement reuse of Bay dredged material in the Delta for levee system stability and for ecosystem restoration purposes as a CALFED priority.
- Define and analyze an implementation plan of adequate assurances that Bay resources will be restored and protected, to be implemented prior to approval of any significant new facilities to store and divert water. New facilities should then be phased in only after their need is established and the success of ecosystem restoration efforts are documented. A large percentage of any new storage facilities should be reserved to provide flows for habitat.

Should you have any questions regarding our comments, please feel free to contact me or Steve Goldbeck of our staff.

Sincerely,



WILL TRAVIS
Executive Director

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