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STATE OF CALIFORNIA GRAY DAVIS, Governor

SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION

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September 22, 1999

Lester Snow, Executive Director
CALFED Program
1416 Ninth Street, Suite 1155
Sacramento, CA 95814

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 its September 16, 1999 meeting. Our comments are based on the policies in the laws which the Commission administers--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.

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.

We are 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 8.1.5 of the EIS/R, CALFED will need to submit a federal consistency determination to the Commission under the federal Coastal Zone Management Act for the adopted CALFED alternative. Therefore, our intention is that our comments not only raise issues regarding the EIS/R but also provide CALFED an indication of the information we will likely request as part of this consistency determination. Specific projects in the Commission's jurisdiction will require Commission permits.

- **Commission Policies and Past Comments.** The Commission has adopted policies in its *San Francisco Bay Plan* and *Suisun Marsh Protection Plan* 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 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 Protection 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.

3. 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."

We have 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: the Commission 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: the Commission provided comments to the SWRCB on February 22, 1995 regarding water diversions and improved protections proposed in the 1995 plan and provided recommendations to strengthen the plan's protection of Bay and Suisun Marsh resources.

The previous *Draft Environmental Impact Statement/Report* for the CALFED Program: the Commission provided comments to CALFED dated July 1, 1998. This comment letter discussed nine main issues of concern:

1. Impacts to the "entrapment zone", or zone of high biological productivity where freshwater from the Delta meets saline water of the Bay, from decreases in Delta outflow to the Bay.
2. Changes to salinity patterns in the Bay and Suisun Marsh and negative impacts to the brackish tidal marshes in Suisun Marsh.
3. Reduction of peak flows and subsequent water quality and biological impacts.
4. Development of water flow standards to improve the health and productivity of the Bay.
5. Exploration of the potential for water use efficiency improvements to offset projected increases in water consumption.
6. Provision of adequate assurances that any constructed storage facilities will be operated to provide adequate peak, average, and minimum flows to the Bay.
7. Assurance of adequate funding for ecosystem restoration projects throughout the Bay-Delta system.
8. Potential for use of dredged material to help restore wetland habitat in subsided areas.
9. Clarification of the manner in which water quality measures will be implemented.

Impacts of the Preferred Alternative. Many of the potential impacts of the Preferred Program Alternative would occur outside the Commission's jurisdiction. Many of the programmatic actions would have a beneficial effect on the Bay, for example as result of upstream water quality improvement projects.

The revised EIS/R contains information that only partly addresses the issues and potential impacts raised in the Commission's letter on July 1, 1998 regarding potential impacts to the Commission's jurisdiction. For example, the EIS/R states that, under the Preferred Alternative, the entrapment zone would likely shift east up to a maximum of three kilometers. However, the EIS/R does not sufficiently evaluate the biological impacts of such a shift. Similarly, the EIS/R states that there would be reduction in Delta outflows and subsequent increases in Bay salinity and impacts to water quality. The EIS/R does not evaluate the significance of these impacts, e.g. to biological productivity and habitat types in Suisun Bay, beyond stating that the impacts are not considered significant. It is not clear whether and how CALFED intends to improve water flow standards to protect the Bay, in conjunction with increased water storage capacity. Assurances that Bay Area ecosystem restoration projects will receive suitable consideration for funding are also not clear. Finally, the EIS/R mentions that CALFED will coordinate with Bay Area agencies regarding the beneficial reuse of dredged material in the Delta, but provides no details or further assurances that this coordination will occur (EIS/R page 1-22).

We are concerned that the revised EIS/R does not fully address the issues raised in our July 1, 1998 comment letter to CALFED. While we understand that this EIS/R is a programmatic document, and thus is limited in the specificity of its analysis, this EIS/R represents a major decision-making point in the CALFED process. We also understand that this document is a revision to the previous Draft EIS/R, and thus there is no formal "response to comments" section as is found in a Final EIS/R. We note the effort that went into modeling changes in water flow, salinity, and the location of the entrapment zone, and the more detailed definition of various CALFED Program elements, as outlined in the EIS/R. However, we could not find the next step in these analyses, which is to evaluate and present the ecological changes and impacts which could occur as a result of these changes. While the final EIS/R should optimally include this information, the Commission will also likely address these similar issues during the federal consistency review process.

Among other impacts, the EIS/R states that the Preferred Program Alternative may result in the following significant adverse impacts to the Bay and Bay Area resources:

1. According to modeling results, over the long term the entrapment zone position (as discussed on page 7) would likely shift east in September, and may shift east or west in March (EIS/R page 5.2-47), by a maximum of three kilometers in dry years (EIS/R page 3-10). In the July 1, 1998 comment letter to CALFED, we requested that CALFED provide a detailed analysis of the biological impacts from such shifts. Such an analysis is not included in the revised EIS/R.
2. Lower Delta outflow would occur during November through March, according to modeling results for the long term (EIS/R page 5.1-61). On an annual basis, modeling indicated a reduction in Delta outflows resulting from the implementation of the Preferred Alternative's additional storage capacity (EIS/R page 5.1-61). In the July 1, 1998 comment letter to CALFED, the Commission requested that CALFED provide a detailed analysis of the biological impacts from changes to the flow regime. Such an analysis is not included in the revised EIS/R.
3. The "[s]hift in timing of Delta inflow results in some improvements in Delta water quality [that are] offset by increased south Delta pumping." (EIS/R page 3-10) that will affect quality of Delta outflow to the Bay. The Draft EIS/R states that there would be lower water quality impacts if the Hood area diversion facility considered in the Preferred Alternative was constructed (EIS/R page 3-10). In the July 1, 1998 comment letter to CALFED, we requested that CALFED provide a detailed analysis of the water quality impacts from changes to the flow regime, particularly peak flows. Such an analysis is not included in the revised EIS/R.
4. Due to the reduction in Delta fresh water outflows, the average salinity of Bay waters could increase "very slightly," and South Bay flushing could be slightly reduced during high outflow periods (EIS/R page 5.3-4). The Hood area diversion facility would also decrease Sacramento River flows. In the July 1, 1998 comment letter to CALFED, we requested that CALFED provide a detailed analysis of the impacts to Suisun Marsh habitats from salinity increases. Such an analysis is not included in the revised EIS/R.
5. Non-native species abundance and distribution could increase (EIS/R page 3-23).
6. Existing habitat types could be converted due to restoration activities (EIS/R page 4-10) and, potentially in Suisun Marsh, activities undertaken through the Levee System Program (EIS/R page 3-13). For example, seasonal wetlands could be impacted through levee restoration activities, and brackish tidal wetlands could be impacted by shifts in the entrapment zone.
7. Water diversion to new storage facilities could result in reduced productivity and altered migration routes of fish species (EIS/R page 3-13). The Draft EIS/R states that the Hood area diversion facility would be constructed only if it "can be operated without adversely affecting fish populations. " (EIS/R page 2-2).

According to the Draft EIS/R, CALFED believes that the majority of these adverse impacts can be avoided or reduced to non-significant levels through a variety of mitigation activities. Of the listed potential impacts to the Bay and Bay area resources, CALFED considers the increase in abundance of non-native species and the loss of certain habitat types as unavoidable and significant potential impacts (EIS/R pages 3-23 to 3-24).

Commission Comments. Many of these issues are the same or similar to the issues raised by the Commission in previous comments to CALFED, with the addition of issues eight through eleven (the Environmental Water Account, non-native species abundance, CALFED implementation review, and Suisun Marsh levee restoration).

1. **Entrapment Zone.** The potential impacts of greatest concern in the Commission's jurisdiction 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 according to the tidal effects, 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 the standards would allow the entrapment zone to shift towards the Delta.

   The EIS/R states that the Preferred Alternative would shift the location of the entrapment zone towards the Delta by a maximum of three kilometers, particularly during low flow conditions. The duration of such a shift is modeled over the long term to extend from October through approximately April. The revised EIS/R still does not provide further analysis of the impacts to biological productivity resulting from such a shift.

   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.

   As stated in its previous comments, we believe that the revised EIS/R should provide a more detailed analysis of resulting biological impacts from the modeled X2 shift, if any, during various times of the year and during various water years. If there are significant impacts, specific mitigation measures, particularly related to water release from storage facilities, should be described.

2. **Salinity.** A second potential impact to the Bay would result from changes to the average salinity patterns in the Bay. Presently, the tidal marshes in Suisun Bay are brackish. However, decreased Delta outflows could allow salty Bay waters to push farther upstream, resulting in the transformation of brackish wetlands 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.

   According to the EIS/R, incorporating the increased water storage element of the Preferred Alternative would increase salinity of waters in the western Delta at Emmaton in the Sacramento River but decrease salinity of waters in the San Joaquin River at Jersey Point. The EIS/R states that the average overall Bay water salinity could increase "very slightly" (EIS/R page 5.3-4) due to reductions in Delta outflow but does not discuss any area-specific biological impacts (e.g. in the Sacramento River) due to salinity changes.

We could not find in the revised EIS/R the analysis that the Commission requested of potential impacts to tidal marshes in Suisun Bay resulting from these changes, but the EIR/S continues to conclude that no significant unavoidable adverse impacts were identified for Bay wetlands and wildlife. It further finds that ecosystem restoration projects as part of CALFED would likely result in a beneficial impact to Bay wetlands and wildlife. It remains unclear whether significant changes in Suisun marshes would occur, and whether CALFED ecosystem restoration projects would offset any conversion of brackish water marshes to salt marsh.

We continue to believe that the document should clarify whether the Preferred Alternative would significantly increase the salinity of brackish, tidal marshes in Suisun Bay 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 benefit the Bay system by improving water quality and supporting Bay ecological functions dependent on peak flows. The increased storage facilities proposed as part of the Preferred Alternative would be used to capture a greater percentage of the unregulated high flows in the Bay-Delta system. This would result in a reduction of the frequency, intensity and/or duration of peak flows. However, the Ecosystem Restoration program includes increased spring flows during 10-day pulse flow periods in Central Valley Rivers and the Delta (EIS/R page 5.2-19). It is unclear how these pulse flow periods would reduce the impact of the reduction of peak flows due to increased storage facilities, and what the impact, if any, would be on the biological health of the Bay.

   We continue to believe that the document should clarify the impacts, if any, of the net affects on peak flows to the Bay 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. The revised EIS/R should include a more quantitative analysis of the high, average, and minimum flows needed to restore and maintain Bay resources. Higher Bay inflow than mandated under the current X2 standard may significantly improve the health and productivity of the Bay. Identification of these flow levels should then be used for evaluating the impacts under the Preferred Alternative and for setting future flow standards.

4. **Water Use Efficiency.** The EIS/R Preferred Alternative indicates that new water storage facilities would be constructed if, among other things, there is "[d]emonstrated progress in meeting the Program's water use efficiency...program targets" (EIS/R page 2-14). Considering the potential for negative impacts to the Bay from additional upstream water storage facilities, this statement should be expanded upon and strengthened. New water use efficiency programs should be implemented and monitored to allow for the clear determination of the need for additional water storage prior to the development of water storage projects. The revised EIS/R should provide additional details on how "demonstrated progress" will be defined and measured for this purpose.

   In an earlier letter, we requested that CALFED clarify if future increased water needs could be offset by water use efficiency improvements. The EIS/R maintains that forecasting water needs is uncertain due to unknown future population growth, land use changes, and other factors (EIS/R page 5.1-3). We still believe that it is possible to

quantify the amount of water that could be conserved through water use efficiency programs, and that this information is critical in the debate over new storage facilities. CALFED should provide this information in the revised EIS/R.

5. **Assurances.** The protection of Bay resources depends on assurances that the Preferred Alternative's water storage and conveyance facilities would be operated to provide adequate peak, average and minimum flows to the Bay. However, the discussion of assurances in the EIS/R, while acknowledging the need for and presenting potential methods to provide assurances, still does not propose specific proposals or commitments. We continue to believe that, although this is a programmatic document, the provision of adequate assurances is a critical component that must be addressed prior to choosing and implementing new facilities to store and divert water. For example, as mentioned above, permanent enforceable standards for minimum, average, and pulse freshwater flows should be established for inflow to the Bay in order to protect and preserve Bay resources.

   As stated in the previous comment letter, we believe that ecosystem restoration efforts should be monitored and proven to be successful, and adequate assurances should be implemented, prior to constructing storage and conveyance facilities that enhance water diversion. 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.

6. **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, although funding for Bay projects (such as Hamilton wetlands restoration planning) has increased in recent funding rounds. The Commission continues to believe 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. The six goals, nearly 100 restoration objectives, and restoration targets presented in the CALFED Ecosystem Restoration Program illustrate the need for funding Bay Area projects.

7. **Dredged Material Reuse.** The EIR/S mentions the potential benefits of using dredged material to help restore wetland habitat in subsided areas (EIS/R page 1-22). The Commission continues to believe 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 additional similar projects. The EIR/S should include and analyze a dredged material reuse program in the Delta using Bay and Delta material as part of the alternatives.

8. **Environmental Water Account**. The EIR/S indicates that the Water Transfer Program will include the development of an "Environmental Water Account" in the first few years of implementation of CALFED. While the Commission understands that this EIR/S is a programmatic document, this proposed Account appears to be a key measure for insuring adequate in-stream flows for fish and other species. The revised EIR/S should include as much information as possible regarding the proposed Environmental Water Account Program. How would the $50 million per year estimated to be needed for the Account (CALFED Revised Phase II Report page 100) be provided? Would this approach be viable in low water years or in the future as water becomes more scarce and thus more expensive? How would the real-time management decisions be made? Would water purchases to increase Delta flows to San Francisco Bay be allowed, even if monitoring indicated no immediate, direct link to fish survival? The revised EIS/R should include these types of details.

9. **Non-native Species Abundance Increases**. While the EIS/R indicates a potentially unavoidable significant impact due to increased non-native species, the document does not discuss mitigation for this impact. Considering that San Francisco is regarded by some as the most invaded estuary in the country, and considering the spread of invasive species into the Delta system, the omission of this discussion is significant. At a minimum, the Ecosystem Restoration, Levee System Integrity, and Water Transfer Programs should all incorporate measures to address this issue. The revised EIS/R should clearly state how CALFED will address non-native species issues and impacts.

10. **Periodic Review of CALFED Implementation**. The EIR/S includes information regarding the future implementation of the Program. It is not clear, however, if there will be a periodic opportunity for public review and comment regarding implementation of the overall CALFED program. This review is particularly important since CALFED is portrayed as an adaptive management program that will "learn from its mistakes." Additionally, since certain CALFED program elements could potentially be in conflict, the public should have the opportunity to provide input on the resolution of these conflicts. The revised EIR/S should include a description of how such a public review and input will happen in a programmatic fashion.

11. **Suisun Marsh levee protection**. There appear to be two options that CALFED is considering for the Suisun Marsh levee system. One option would be to essentially maintain the levee system as is, and the other option would be to protect only a portion of the exterior marsh levees and allow certain managed wetland areas (i.e., duck clubs) to become tidal marsh. At a minimum, the revised

EIS/R should provide more information on these alternatives. Optimally, the revised EIS/R should detail the Suisun Marsh levee program that CALFED will propose and evaluate impacts to the current marsh system.

EIS/R Analysis Conclusions. 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: (1) the impacts of increased water diversions and decreased Delta outflow, including potential impacts to tidal marshes in Suisun Bay from increasing salinity; (2) whether the shifting of the entrapment zone from Suisun Bay towards the Delta would be ecologically significant; and (3) the effects on peak flows. Mitigation measures should be presented 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. Define the term "demonstrated progress" in water use efficiency in the discussion of when new storage facilities would be built.
- 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 as a CALFED priority a plan to implement reuse of Bay dredged material in the Delta for levee system stability and for ecosystem restoration purposes.
- Provide additional description of the proposed Environmental Water Account, including information regarding funding sources, potential purchasers, and any purchase limitations. This additional information should also include whether and how the Account would compete with other water users for scarce water supplies.
- Develop and describe efforts to address the issue of non-native species proliferation. This issue is a critical consideration in the Ecosystem Restoration, Levee System Integrity, and Water Transfer Programs.
- Define and analyze an implementation plan for 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. In this implementation plan, construction of new facilities that would adversely affect the Bay should occur after assurances that Bay resources will be protected and the documentation of the success of ecosystem restoration efforts. A large percentage of any new storage facilities should be reserved to provide flows for habitat.
- Provide details on the proposed approach for the Suisun Marsh levee system.

Resolution regarding the CALFED Program. Attached is a Commission Resolution regarding the CALFED program that the Commission approved at its September 16, 1999 public hearing.

The Resolution identifies three essential elements that must be incorporated into future policies and programs undertaken by the CALFED process:

1. A guarantee that there will be adequate freshwater flows into the Bay.
2. Water conservation by all users.
3. A fair share of funding for Bay Area environmental restoration efforts.

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

Attachment
WT/JW/bb