

**TESTIMONY OF**  
**GARY BOBKER, PROGRAM DIRECTOR, THE BAY INSTITUTE**  
**BEFORE THE LITTLE HOOVER COMMISSION**  
**REGARDING GOVERNANCE OF THE CALFED BAY-DELTA PROGRAM**  
**September 22, 2005**  
**Sacramento, California**

Mr. Chairman, members of the Commission, and staff,

Thank you for inviting me to speak with you today regarding governance of the CALFED Bay-Delta Program. I would like to emphasize the following points in my testimony:

- The CALFED Program lacks a focused strategy with clear, measurable goals. The problem is not simply a structural one in implementing an otherwise unambiguous plan. This makes resolving governance issues more complicated.
- The underlying problem that CALFED must address is the survival and restoration of the Delta ecosystem. The picture is even bleaker now than at the time the ROD was signed.
- Solving the Delta's problems necessarily involves implementing changes throughout the watershed and exporting areas, which however dilutes CALFED's focus and stretches its resources to the breaking point.
- Using science and adaptive management is key to CALFED's success, but implementation of the Science Program has been highly constrained.
- A focused strategy for saving the Delta ecosystem and reducing reliance on Delta water supplies, including an adaptive management framework, urgently needs to be developed by CALFED and adopted by the legislature as the basis of a sound governance architecture.
- A new agency exclusively dedicated to protecting and restoring the Delta ecosystem should be created.
- Specific agency mandates to implement programs and projects to reduce reliance on Delta water supplies should be adopted by the legislature.

- The CBDA should be given direct authority to oversee agency compliance with new legislative mandates for restoring the Delta ecosystem and reducing reliance on Delta water supplies, and to generate revenues through fees on water use to assist in implementing the CALFED strategy.
- The CBDA's Science Program should be given increased independence and more assured staff and budget resources.

In order to identify and remedy CALFED's governance problems, it is absolutely necessary to understand some substantive shortcomings of the Program. If "form follows function," then determining the proper governance mechanisms for CALFED will require clarifying and refining its purposes and scope.

The CALFED Program lacks a focused strategy with clear, measurable goals. The 2000 CALFED Record of Decision (ROD) is a menu of hundreds of different programs, projects and measures, that was adopted without providing adequate "operating instructions," e.g., guidance as to which problems, goals and elements are most critical to address; how to choose between program elements when they conflict with each other or when resources are limited; how to measure success in achieving program objectives; and how to change program implementation over time as new information becomes available. Both the technical and political complexity of managing the Bay-Delta system no doubt contributed to this end-result, but the failure to develop a strategy instead of a menu was also predicated in large part on a "have your cake and eat it too" philosophy that attempted to secure buy-in from every potential stakeholder involved in the process with the prospect of creating substantial new benefits, and on the presumed availability of public funds to subsidize such a "Christmas tree" approach. Little progress has been made since the ROD to identify quantitative or other measurable objectives, develop an integrated strategy, prioritize actions, adopt performance indicators, or formally incorporate adaptive management into policy making.

The lack of a focused strategy with clear, measurable goals also masks significant unresolved issues at the heart of CALFED. The ultimate driver of the Program is the fact that the Delta is not healthy enough to support a viable and sustainable ecosystem, let alone the many beneficial uses that are affected by conditions in the Delta. Like most other scientific and regulatory efforts to diagnose the Delta ecosystem's problems, CALFED's Ecosystem Restoration Program identifies

hydrologic alteration (e.g., changes in the amount and timing of freshwater flows moving from the watershed through the Delta to San Francisco Bay) as a central cause of the decline of the Bay-Delta environment – while at the same time CALFED’s Storage and Conveyance Programs rely on increasing extractions of water from an oversubscribed system, on the assumption that investments in upstream habitat and expanded use of real-time monitoring will compensate for the impacts of increased diversions and exports. The failure to resolve this conflict creates tension between different Program implementation elements and undermines CALFED’s overall credibility as a management solution.

Finally, the lack of a focused strategy with clear, measurable goals has made it difficult for implementing agencies to fully execute – and the California Bay-Delta Authority (CBDA) to adequately oversee – the measures and schedules envisioned in the ROD. The responsibility for implementing hundreds of potential actions – often with insufficient staff and budget resources – in coordination with other agencies and the CBDA is made even more difficult as implementing agencies must balance allocations of resources to their CALFED assignments against other competing mandates, including regulatory oversight. The ROD’s failure to provide an adaptive management framework (including a set of decision pathways that describe how key uncertainties and disagreements will be resolved, the management implications of new scientific information, and areas where policy guidance needs to be clarified) only intensifies the confusion and lack of focus. Furthermore, absent a clear mandate to reduce reliance on Delta water supplies and amid continuing disagreements over the relative efficacy of competing water management options, many water suppliers and users have been reluctant to implement aggressive water conservation, groundwater management, and related programs. This continuing reliance on Delta supplies has the effect of prolonging the exposure of water supplies in exporting areas to disruption of the state’s complicated, over-subscribed water supply system, which is characterized by numerous bottlenecks and subject to ongoing climatic variability, environmental stresses, and security threats.

The underlying problem that CALFED must address is the survival and restoration of the Delta ecosystem. The Delta ecosystem is a unique and rich aquatic environment, supporting hundreds of plant and animal species including many endemic to the estuary. The Delta ecosystem is also an endangered environment, at far higher risk than any other beneficial use covered by the CALFED Program. On average, only half to two-thirds of natural inflow reaches the Delta and San Francisco Bay, owing to large-scale diversions upstream of the

Delta and large-scale exports from the Delta, and the flow that does make it through the system is released on a pattern very different from the natural hydrology around which the Delta ecosystem evolved. Less than 5% of the Delta's original tidal wetlands and riparian woodlands, which once supported huge concentrations of fish and wildlife, remain. Over time, large-scale alteration of flow and habitat has rendered the Delta ecosystem increasingly vulnerable to invasions by non-native species and amplified the effects of contaminant discharge to the watershed, further degrading conditions for native fish and wildlife species. Since the 1970s, most estuary-dependent aquatic species have suffered serious, long-term population declines. The picture is even bleaker now than at the time the ROD was signed. Most open-water native fishes of the Delta have experienced further, precipitous declines in the last three years. In addition, our growing understanding of the effects of global warming indicates both a reduction in snowpack, further restricting inflow to the Delta, and rising sea levels, which will reduce the area of brackish and freshwater habitat now available in the upper reaches of San Francisco Bay as well as the Delta. And new studies strongly suggest that Delta levees are highly vulnerable to catastrophic failure from seismic and flood events, raising the specter of instant conversion of the Delta to a set of stagnant, salty lagoons. If not addressed effectively and on a large-scale, these risk factors could lead to the destruction of the Delta as an ecosystem and the extinction of its native fish and wildlife communities.

Ecosystem protection is not the only important use of the Delta's water resources, of course, but it is by far the most sensitive and threatened of those uses. The areal extent of both Delta and San Joaquin Valley agriculture – representing the largest sector of water use – is expected to contract over time, and less than a quarter of the state's consumptive use is currently supplied by the federal Central Valley Project's and State Water Project's Delta supplies. Other sources can and should be found to support continuing offstream uses. But simply continuing to transfer the same or increased amounts of water through (or around) the Delta will not achieve and would most likely preclude the larger goal of ensuring that the Delta ecosystem has adequate inflows and physical habitat to safeguard native fish and wildlife populations from future scenarios of shrinking habitat area and sudden catastrophic change, let alone relieve the current severe stresses on that ecosystem. Any CALFED strategy must first assure the Delta ecosystem's future. Securing and implementing a legislative mandate to reduce reliance on Delta water supplies would help achieve that goal.

Solving the Delta's problems necessarily involves implementing changes throughout the watershed and exporting areas, which however dilutes CALFED's focus and stretches its resources to the breaking point. The CALFED ROD correctly acknowledged that the solution area (the Central valley watershed, and areas exporting water from the Delta) is far larger than the problem area (the Delta), especially given the effects of water withdrawals, land use changes, and contaminant loadings throughout the watershed. The practical effect of this realization, however, has been to further weaken the focus of Program oversight and coordination activities by creating an unmanageable scope and by encouraging the addition of numerous worthy but lower priority elements to the CALFED universe. Some CALFED implementation activities strongly contribute to solving the Delta's problems by reducing reliance on Delta water supplies, e.g., promoting groundwater banking and conjunctive use, conservation and recycling, water transfers. Other activities, such as watershed management and water quality programs, are worthwhile initiatives, but may not be particularly critical for saving the Delta ecosystem. Furthermore, the lack of a strategy for reducing reliance on Delta water supplies perpetuates the long-standing and serious substantive disagreements over the relative role of demand management, technology/management innovations, and supply expansion elements in implementation decisions throughout the watershed.

These problems are exacerbated by the fact that the CBDA has little current authority to compel changes in agency implementation or to change behaviors in the stakeholder community, such as more aggressive implementation of groundwater management and water conservation, since it has direct authority over ERP and Science Program budgets only and no ability to generate new revenues. Furthermore, the CBDA board's public members are unpaid, and selected as geographical representatives by the Governor or as straight legislative appointments. The lack of expertise requirements, real authority and compensation conspire to prevent highly knowledgeable individuals from being added to the board or dedicating significant commitments of time and energy to the oversight function.

Using science and adaptive management is key to CALFED's success, but implementation of the Science Program has been highly constrained. Given both the complexity of the Delta system and the unresolved, "menu" nature of the ROD, adaptive management should be playing a leadership role in implementing the Program. Unfortunately, the Science Program has suffered from serious constraints from the beginning. First and foremost, adequate budget

and staffing resources have not materialized, forcing the program into triage mode rather than comprehensively addressing the larger scientific issues. Further, contracting issues have limited the ability to fully engage and retain leading experts and consultants. Finally, given its limited resources and authority the Science Program has been somewhat reactive, focused on developing science review and other activities to address narrower, project-specific implementation issues identified by implementing agencies and stakeholders, rather than providing a broader, more independent review of Program performance, identifying priority scientific uncertainties or important emerging information for policy makers, and helping CALFED understand the management implications of uncertainties and new data in order to assist with the adaptive management process. (Even the more narrow review efforts have not successfully addressed how review results can or should be incorporated into the management process). In my experience, the independent science review process is prepared to engage on the larger, big-picture concerns and unresolved issues (e.g., assessing sustainability of the Delta ecosystem, developing a preferred Delta hydrograph) that are impediments to a successful Program, but is neither empowered nor resourced to tackle these issues.

In order to remedy these problems, the Commission should consider the following recommendations:

A focused strategy for saving the Delta ecosystem and reducing reliance on Delta water supplies, including an adaptive management framework, should be developed on a highest priority basis by CALFED and adopted by the legislature. Using independent science panels and policy experts, CALFED should immediately dedicate adequate resources to developing an integrated, focused, long-term strategy for protecting and restoring the Delta ecosystem and promoting self-reliance in areas diverting above or exporting water from the Delta. This strategy should include detailed decision pathways for resolving outstanding areas of uncertainty or disagreement. The strategy should be approved by the legislature and used as the basis for specific charges to implementing agencies to implement components of the strategy as appropriate.

An agency exclusively focused on protecting and restoring the Delta ecosystem should be created. Currently, a number of agencies and commissions have permitting jurisdiction over one particular Delta “vector” (e.g., land use, diversions, endangered species, flood management) or are charged with implementing specific, discrete Delta projects. What is lacking is one entity

whose sole function is to implement an ecosystem protection and restoration program in the Delta – a complex, challenging and full-time task. Such an entity would not replace the current regulatory activities of existing agencies but supplement those activities with new authorities, potentially including the ability to assess users of Delta waters for Delta restoration fees.

Agency mandates for taking action and changing behavior outside the Delta should be adopted by the legislature. Those components of an approved CBDA and legislative strategy which go beyond Delta ecosystem restoration to address changes in resource management outside the Delta should be included by the legislature as specific mandates – with clear, measurable objectives – for the operation of, and expenditure of funds by, those agencies which should most appropriately implement a particular element of the strategy.

The CBDA should be charged with overseeing compliance with the legislative mandates for change in and outside the Delta. The CBDA should be granted the authority to approve the CALFED implementation workplans and budget components for all agencies charged with specific legislative mandates for implementing an approved CBDA and legislative strategy. Furthermore, the CBDA's authority should be expanded to include the ability to assess user fees as needed to implement the strategy. Finally, the CBDA board's public members should be paid positions selected on the basis of specific technical and policy expertise and experience in ecosystem management, water resource management, and related disciplines.

The CBDA's Science Program should be given increased independence and a higher priority for staff and budget resources. A truly independent science review organization should be one of the highest priorities for funding – a small investment with a large payoff. The Lead Scientist and the Independent Science Board should be responsible for providing an annual review of Program performance to the CBDA and the Legislature, which identifies emerging concerns, new information, and recommended changes to implementation. Furthermore, this Commission should consider options for protecting the integrity of the Science Program from outside interference that would limit the ability of the CBDA to directly shape the Science Program workplan and budget, while retaining ultimate accountability and oversight.

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Again, thank you for the opportunity to provide these comments. I look forward to working with you and your staff on solutions to CALFED's governance problems.