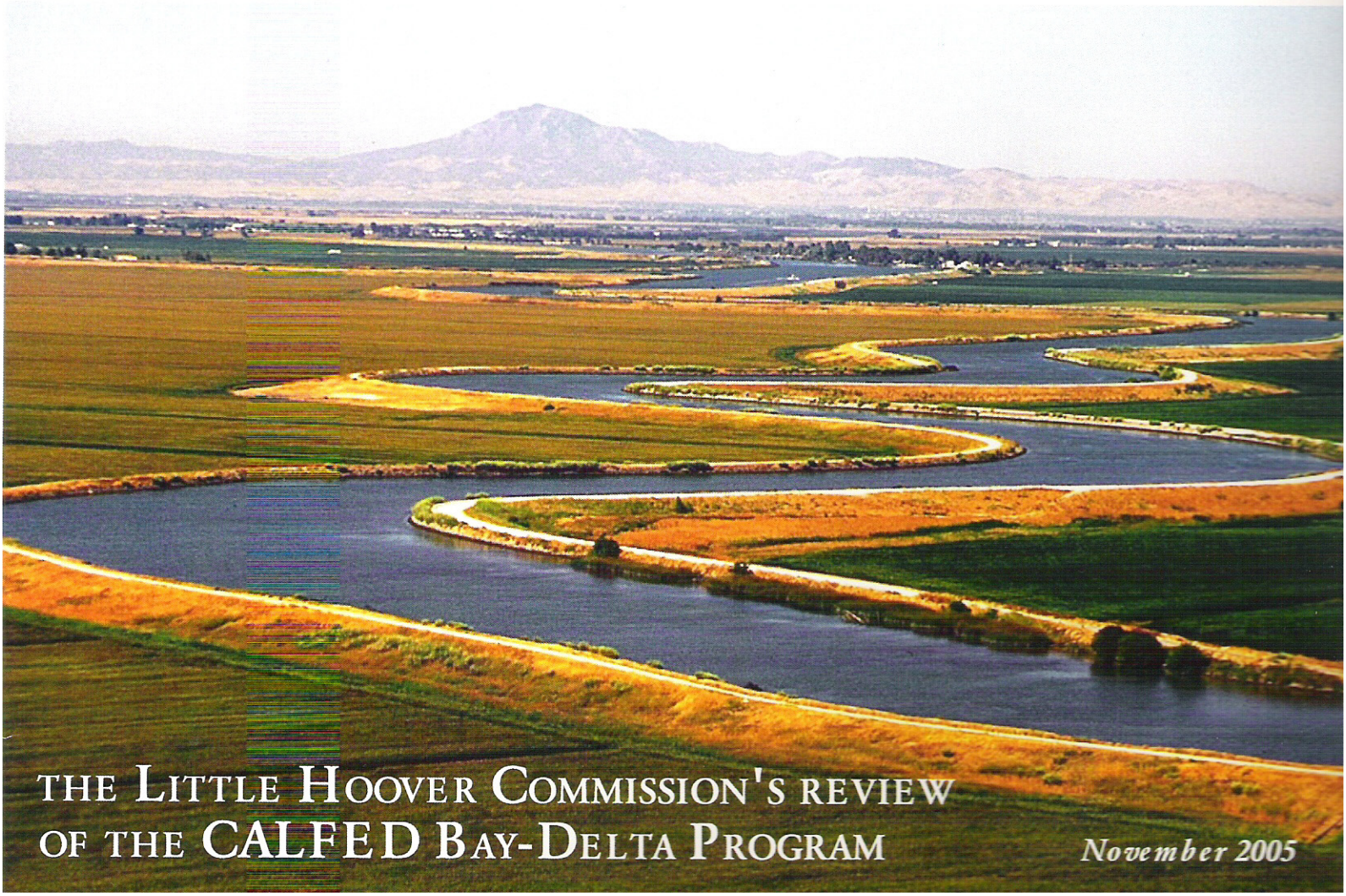
Still IMPERILED *Still* IMPORTANT



THE LITTLE HOOVER COMMISSION'S REVIEW OF THE CALFED BAY-DELTA PROGRAM

November 2005

State of California

LITTLE HOOVER COMMISSION

November 17, 2005

The Honorable Arnold Schwarzenegger
Governor of California

The Honorable Don Perata
President pro Tempore of the Senate
and members of the Senate

The Honorable Dick Ackerman
Senate Minority Leader

The Honorable Fabian Núñez
Speaker of the Assembly
and members of the Assembly

The Honorable Kevin McCarthy
Assembly Minority Leader

Dear Governor Schwarzenegger and members of the Legislature:

CALFED was forged from a crisis, and to a crisis CALFED has returned. A decade ago, a persistent drought and collapsing fisheries escalated a dispute among state and federal officials over water in the Sacramento-San Joaquin River Delta. Through the leadership of Governor Pete Wilson and Secretary of the Interior Bruce Babbitt, a settlement was reached and a state-federal plan known as CALFED was crafted for shoring up water supplies and Delta levees, improving water quality and restoring the ecosystem.

But the winds of Hurricane Katrina have reached California – blowing out the flicker of confidence that officials had in the ability of Delta levees to withstand earthquakes, rising sea levels and inevitable winter floods. Some $3 billion have been spent trying to fix the Delta. But the Delta smelt that some consider to be the estuary's coalmine canary are even harder to find than stakeholders who are willing to put up their own money to continue funding CALFED.

For years, the "CALFED way" referred to coordinated government, collaborative decision-making and balanced progress that kept adversaries from pursuing unilateral initiatives. To a new generation of officials, CALFED is costly, underperforming, unfocused and unaccountable.

As part of an effort to revitalize CALFED, the Commission was asked to review the "governance" of the program and the role of the California Bay-Delta Authority. The review affirmed both the importance of CALFED and the need to fundamentally change how it is managed.

Frustration with CALFED is warranted. Because of a faulty design, the CBDA cannot effectively coordinate activities, push agencies to perform, or provide rigorous oversight. It is unable to control or cajole. To resolve those problems, the Commission recommends replacing the Bay-Delta Authority with a governance structure that is better capable of managing a complex program and resolving conflicts, while at the same time involving the public in meaningful ways and providing more effective external oversight. Specifically:

1. Policy-makers should better integrate efforts to restore the Delta with the overall state plan for meeting water needs while protecting water quality and the environment. Using the principals of the CALFED Record of Decision as a basis for moving forward, state and federal leaders must define specifically what CALFED will accomplish, how it should pursue those goals, and who will help pay the tab.

2. CALFED needs an organizational structure that enables a strong leader with clear authority and consolidated responsibility. That leader needs to forge a stronger relationship with federal partners, engage stakeholders in a renewed effort to resolve conflicts, and direct the state agencies responsible for CALFED activities.

3. CALFED cannot lose sight of one of its primary purposes: to get agencies to work together to accomplish what they could not do alone. Agencies need to deploy management tools that can improve performance and better integrate science into decisions.

4. CALFED has demonstrated the value of public involvement, but that involvement must become even more meaningful. The general public must understand the importance of the Delta to their everyday lives and the future of California. Interest groups and stakeholders need more effective ways to understand and influence government decisions. Ultimately, public support is needed to prompt traditional stakeholders to compromise and provide the financial support needed to restore the estuary and ensure reliable and safe water supplies.

The Legislature also needs to play a more consistent and effective role. Policy–makers need to explicitly endorse specific objectives so that government officials have a clear mandate to pursue progress. Lawmakers need to be clear about what they expect of state agencies, and then hold them accountable for outcomes. And by rewriting the California Bay-Delta Authority Act, the Legislature needs to ensure that the Governor has the authority to get the job done, and then independently and expertly assess progress.

During the Commission's four-month review, the administration has been exploring ideas for how to best advance and pay for a statewide water strategy, including some basic restructuring of government functions. Changes on that scale would provide more options for how to govern the CALFED program. But those ideas have not matured to formal proposals and state water officials only shared that information with the Commission in the last few days. The Commission's recommendations – as requested by the Governor – seek to improve the governance of CALFED in the context of the State's existing agency structure.

The most important factor in CALFED's success will be leadership. Because of term limits and the multiple demands on policy-makers, CALFED's sponsors were right to be concerned about the need to institutionalize the program so it could endure the normal transitions in power. But one lesson of the last five years is that CALFED will require an amount of political capital and leadership that can only flow directly from the institution of the Governor. Furthermore, state leaders will need to assertively pursue solutions to the Delta regardless of the degree of federal participation.

In conducting this review, the Commission received tremendous cooperation from state and federal officials and many stakeholders. It appreciates their advice and dedication to the issue. The Commission is confident these recommended reforms will help California achieve its goals.

Sincerely,

Michael E. Alpert
Chairman

Still Imperiled, *Still* Important

The Little Hoover Commission's Review of the CALFED Bay-Delta Program

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Executive Summary

The Sacramento-San Joaquin River Delta is a treasured and imperiled resource. And CALFED has been the best hope to restore it.

The ambitious state-federal partnership is proof that political will and leadership can resolve seemingly intractable conflicts. And yet in recent years, the program also has demonstrated the propensity for rudderless bureaucracies to get caught in inescapable eddies.

It is not too late for the Delta, or for CALFED. But restoring the estuary and managing the resource in a sustainable manner will require continuous political support, expert leadership, and smart management.

If California is to prosper, California's leaders at a minimum must provide the basic infrastructure that makes the state functional, healthy and attractive. Those minimum obligations include a comprehensive strategy for providing water while protecting water quality, meeting water needs while protecting the water ecosystem. The Governor is responsible for developing that strategy and the Legislature is responsible for reviewing and enacting such a policy into law.

The Delta is so critical to California's future that no water policy will be successful if the estuary is not restored. And for CALFED to succeed, the program will need to be integrated into a statewide strategy – with similar, but statewide objectives – for efficiently meeting water supply and environmental goals.

In reviewing the governance of CALFED, and the role of the California Bay-Delta Authority, the Commission examined the program's mission and vision and the duties assigned to the CBDA. The CALFED Record of Decision signed in 2000 was a monumental accomplishment, but it was not the final accomplishment. Many difficult decisions will have to be made about how to best use and restore the Delta. The ROD is not a self-implementing document, but a commitment to move from broad goals to specific strategies and measurable performance.

For CALFED to be successful and for any governance structure to be effective, the administration must resolve the major disagreements that

have slowed or stalled progress toward the four main objectives of water supply reliability, water quality, ecosystem restoration and levee stability.

To resolve these disputes and to build public support for financing these activities, a strong leader with the delegated authority of the Governor must have plenary responsibility for CALFED. That leadership must be successful in many venues: with Congress and the Legislature, with partners in the federal agencies, and within the state bureaucracy.

Similarly, state agencies with implementing duties must be focused like never before on performance, and on using science and data to guide decisions and revise strategies. And government overall must improve how it engages the public – because Californians do have good ideas, because their concerns do matter, because their support is needed, and because conflicts among the stakeholders must be resolved, as well as the conflicts among government agencies.

Ironically, for all of the frustration with CALFED, in many respects the agencies are taking on governance and management issues that in other parts of government are just ignored – vague goals and objectives, programs undisciplined by data, interagency disputes, an unwillingness of beneficiaries to pay.

The CALFED cup really is half full. The program's founders put forth a thoughtful vision of collaborative problem-solving and balanced progress. They wanted to coordinate governmental actions and push progress toward performance measures. They wanted CALFED to be transparent and accountable to the public. And in managing a complex and largely mysterious resource, the founders wanted CALFED to adapt to new challenges and new knowledge.

The vision is not flawed, but the implementation effort has drifted off course. The executive director of the South Florida Ecosystem Task Force was right when he congratulated California for pushing the pause button and assessing how CALFED itself could be restored in order to resume progress toward restoring the Bay-Delta.

This opportunity for "adaptive governance," should not only fix what is broken, but reinforce what has worked well. Former Secretary of Resources Douglas Wheeler said that CALFED was predicated on four principles: 1) good communication; 2) active and effective involvement of stakeholders; 3) reliance on science to make decisions; and, 4) sustained and personal leadership. Most of the current problems can be traced back to violations – even brief ones – of those principles.

In the current structure, the personal and executive leadership for California that delivered the ROD was reassigned to a new 24-member, state-federal, official-public, executive-legislative, voting-nonvoting board.

The California Bay-Delta Authority board was given the coordination responsibilities of an earlier policy group that was co-chaired by a high-ranking state and a high-ranking federal official. But unlike the policy group, the Legislature explicitly denied the board actual authority over the agencies tasked with implementing CALFED. Congress, in turn, only allowed federal agencies to participate in CBDA as non-voting members.

The historic and lead responsibility for CALFED that was previously shouldered by the Secretary of Resources was implicitly passed to the executive officer of the CBDA board. But the lines of accountability between the executive director and the administration, between the executive director and the board, and between the board and the administration appear to be more a matter of opinion than fact.

The expectations for the board went beyond overall leadership and coordinated management to include public involvement, conflict resolution and independent oversight. The expectations for CALFED are high enough without constructing a governance system that cannot perform its mission, let alone withstand the hurricane-force political pressures of water policy in California.

One lesson from the CALFED experiment is that process and structure cannot substitute for leadership or authority. California also has learned that while the federal government is an important partner in restoring the estuary and meeting water needs, California's leaders must be prepared to carry whatever part of the load necessary to get the job done.

To bolster governance, policy-makers should provide for the consolidated executive leadership that is necessary to manage such a complex endeavor. The administration needs to develop a cohesive management team of department leaders and strategically involve regulatory agencies. And there should be the appropriate boards for public and expert review and external oversight. Each of these governance tools need to be honed to their unique task, and used appropriately to accomplish shared goals.

Over the last four months, the Commission was assisted greatly by public officials, stakeholders, academic experts and members of the public, who without exception believed that resolving the conflicts in the estuary should be a priority. The Commission appreciates their assistance and commends their contributions to California. The Commission offers the following recommendations toward improving the leadership and management of the CALFED program.

Vision and Mission

Finding 1: Growing disagreements about CALFED's vision and mission and the role of the Bay-Delta Authority are jeopardizing a critical effort to meet California's water needs and restore the Bay-Delta estuary.

California still faces difficult decisions about how it will provide for growth, while managing and even restoring natural assets. A decade ago, strong leaders used the crisis of drought and ecological collapse to forge the best agreement possible. The current troubles in the Delta – including fish declines and levee concerns – make it essential that today's leaders confront the remaining conflicts and fully resolve them. To be successful, however, the efforts to restore the Delta must be integrated into statewide and regional strategies for providing reliable and safe water supplies. Better coordination between the efforts in the estuary and efforts elsewhere will allow CALFED leaders to focus on the most critical problems endemic to the Delta.

Recommendation 1: State and federal leaders need to refine the strategy for developing and implementing long-term and sustainable solutions to the Bay-Delta. That strategy should be integrated into a comprehensive water policy for California that encourages the best use of a scarce and essential resource. Specifically:

- ***A comprehensive state water strategy.*** Sustained progress in the Delta will require a comprehensive strategy that provides regions and local water suppliers with a clear sense of how California should efficiently and in a sustainable way satisfy future water demands.
  - ✓ The administration should articulate how the strategy outlined in the 2005 California Water Plan will guide CALFED's leadership.
- ***Specific goals for a sustainable Bay-Delta.*** In the context of the state plan, and using the principals of the ROD as a starting point, the Governor and the Secretary of the Interior, should refine immediate and long-term goals for restoring the estuary and ensuring that water needs will be met.
  - ✓ State and federal officials – working with the leadership of the involved agencies and the stakeholders – should identify the most important areas of disagreement and tailor a process – using analysis and negotiations – for resolving those disputes.
  - ✓ While this work can begin immediately, a primary function of the executive leadership described in Finding 2 will be building and maintaining consensus on what CALFED must accomplish and the best way to achieve those goals.

Legislative Role in Mission and Vision: Policy-makers must adopt clear and specific goals for the CALFED program and fortify those goals with budget and legislative authority.

- **Set clear, specific goals for CALFED.** The Legislature must put in place goals that communicate to the implementing agencies and the stakeholders the State's priorities and preferred strategies for restoring the estuary and meeting water needs.
- **Ensure the implementing agencies have sufficient authority and resources to succeed.** The Legislature must embed the CALFED goals in the authorizing statutes of the implementing agencies, empower those agencies to achieve their missions, and provide sufficient staff and funding to succeed.

Leadership

Finding 2: The leadership of CALFED is diffused and detached from the authority of the Governor, and as a result cannot govern the program or be held accountable for outcomes.

Leadership is given the credit for CALFED's early progress and blame for the lack of recent progress. Clearly, the job will require a strong and talented leader. But of equal importance, the governance structure must enable that leader to get the job done. Authority must be linked with responsibility and consolidated to make the cross-cutting decisions that will be essential if CALFED is to succeed. Good leaders – who are held accountable for specific outcomes – will need public input, will need to work collaboratively, and will need to use conflict resolution to achieve stated goals.

Recommendation 2: The California Bay-Delta Authority as a coordinating entity should be replaced by a leadership structure that has the authority to accomplish CALFED's mission. The Governor should ensure a high-caliber individual is in place to lead the initiative. The enacting legislation should accomplish the following:

- ***The Secretary of Resources should be responsible.*** The secretary has other responsibilities, but the early days of CALFED showed that the secretary, with the assistance of an undersecretary dedicated full-time to the project, can provide the necessary leadership.

- ***Restore the policy group.*** A senior management team comprised of the primary state and federal departments – and the lead scientist – should meet regularly to ensure true integration. The Secretary of Resources and the U.S. Secretary of Interior or designee should co-chair the group and participate as necessary to resolve those conflicts or approve those actions that could not be managed at a lower level.

- ***The Policy Group should be focused but flexible.*** Key agencies include the state Department of Water Resources, Department of Fish & Game, Environmental Protection Agency, State Water Resources Control Board and the federal Fish & Wildlife Service, Bureau of Reclamation, U.S. Environmental Protection Agency, Army Corps of Engineers and the National Marine Fisheries Service. The group also could be expanded as necessary to include state or federal agencies that could contribute to Bay-Delta solutions.

- ***Conduct an annual Bay-Delta summit.*** The policy group should meet in public at least once a year to explain its activities and respond to public comments and questions. The summit should provide a substantial opportunity for public understanding of progress, challenges and the latest scientific findings regarding the Bay-Delta.

- ***Reassign CBDA staff.*** The staff capacities of the CBDA are essential to orchestrating the CALFED effort. The staff should be assigned to the policy group, under the direction of the secretary. A performance-based strategy for deploying the staff is described in Finding 3.

Legislative Role in Leadership: To ensure public support and political capital, policy-makers should develop mechanisms that ensure consistent and meaningful involvement in CALFED.

- **Establish a joint state-federal Bay-Delta coalition.** State and federal lawmakers should form a bipartisan caucus focused on the estuary. They should work to develop a common understanding of issues, develop consensus legislation needed to authorize improvements and seek the appropriate funding.
- **Convene an annual Bay-Delta conference for policy-makers.** Lawmakers should convene an annual conference that brings together local, state and federal elected officials to increase awareness of the estuary, the gravity of its problems and the potential for reform.

Performance Management

Finding 3: CALFED is not managed to improve performance, incorporate the best science into management decisions, or create accountability for outcomes.

Reversing the unsustainable trends in the Delta is an essential and extraordinarily difficult task. For some of the problems, the options are well-known but there is disagreement on the course of action. But the Bay-Delta also has problems for which feasible solutions must still be found. As a result, "governing" CALFED will require a combination of analysis, negotiation and creativity. Managing these efforts will require a performance-based culture, and the capacity to develop new knowledge

and use science effectively in decision-making. It also will require forming more flexible, inter-agency workgroups that are focused on specific projects and goals.

Recommendation 3: Implementation of CALFED must be strategic, performance-based, and accountable for outcomes. The Governor and Legislature should implement the following recommendations:

- ***Charter workgroups.*** The Secretary of Resources, in coordination with the U.S. Interior Secretary, should charter state-federal workgroups to implement the program components of CALFED. Each workgroup should have a designated leader, clear mission and be held accountable for progress.
- ***Employ strategic management practices.*** The Secretary, in coordination with the U.S. Interior Secretary, should require each department and workgroup to use strategic planning, performance contracts, performance measures and other strategic management practices to promote progress.
- ***Provide annual progress reports and updated strategic plans.*** Each workgroup and department should report annually on progress and provide updated strategic plans that clearly indicate how to address deficiencies, enhance efficiencies and improve outcomes. This public reporting should be part of the Bay-Delta Summit described in Recommendation 2.
- ***Appoint the lead scientist as a member of the CALFED executive team.*** The Secretary, in consultation with the U.S. Interior Secretary, should appoint a lead scientist. The lead scientist should be charged with assisting departments and workgroups to integrate science-based adaptive management into CALFED.
- ***Retain and Reform the Independent Science Board.*** The board should be charged with monitoring the use of science-based practices, adaptive management and other state-of-the-art strategies to meet goals. Members should be appointed by the Governor and the Legislature, in consultation with the U.S. Interior Secretary, based on their credentials. The lead scientist should be a member of the board and serve as a bridge between the board and CALFED administrators.
- ***Prepare an annual report.*** The board should report to the public and Legislature on the adequacy of science-based adaptive management in CALFED and offer recommendations for improvements.

Legislative Role in Performance Management: As a condition of ongoing funding, the Legislature should create incentives for progress.

- ☐ **Require performance contracts for CALFED leadership.** In approving budget authority for the Resources Agency and the implementing agencies, the Legislature should require performance contracts for exempt appointees that outline goals, establish performance metrics, require progress reports and include provisions for continued employment.
- ☐ **Tie on-going funding to the use of performance measures.** The Legislature should bolster its requirement for performance measures. State funding and expenditure authority for CALFED should be limited to programs with performance measures.

Public Involvement

Finding 4: The current CALFED governance structure does not efficiently and meaningfully involve the broader public, provide the necessary transparency in the decision-making process or assertively resolve conflicts.

While leaders must have the authority to get the job done, they also must be held accountable for outcomes. In the quest to efficiently meet water needs and restore the Bay-Delta estuary, leaders will need to meaningfully involve direct stakeholders and the broader public. CALFED's leaders correctly realized that unilateral decisions often result in lawsuits, and that regulatory tools alone are not adequate for the task of restoration. While CALFED has been religious about public involvement, how the public is involved needs to be improved if the program is to achieve its broadly stated goals.

Recommendation 4: The State must provide more meaningful opportunities for the public and stakeholders to participate in the CALFED process to raise awareness, increase transparency, reduce conflicts and provide accountability. The State should:

- ❑ ***Build public awareness.*** The State should utilize its museums and universities, as well as non-profit organizations and the media to engage and educate all Californians on the critical role of the Delta in state water management. Additionally, the State should develop a name that is more descriptive of the program's importance.

- ❑ ***Provide more meaningful public involvement in CALFED.*** The State should establish protocols that provide meaningful opportunities for public scrutiny of substantive issues. The State must provide easy access to critical information and an effective means of communication to ensure that the public is being heard.
    - ✓ ***Regional meetings and local forums.*** CALFED leaders must look beyond Sacramento by holding regional meetings and

local forums to understand and incorporate regional concerns that impact Delta decisions.

- ✓ ***Electronic communication.*** To ensure public input, the State should take full advantage of communication technologies to create an ongoing dialogue including interactive use of the Internet and electronic communication.

- ❑ ***Establish a state advisory committee.*** In collaboration with federal CALFED partners, the Legislature should establish a committee under state law to advise and make recommendations to the Governor, the Legislature, the U.S. Interior Secretary, and the implementing agencies. The committee should replace the federally chartered Bay-Delta Public Advisory Committee.
  - ✓ Members should include stakeholders representing environmentalists, agricultural and urban water users, tribes, rural counties, environmental justice representatives, the business community and regional representatives.
  - ✓ The state advisory committee should reconstitute the nine BDPAC subcommittees into regional subcommittees that address a range of issues in the watershed.

- ❑ ***Develop a process and the capacity for conflict resolution among stakeholders.*** Public involvement in conflict resolution means resolving disputes among stakeholders and interest groups that prevent the State from moving forward.
  - ✓ CALFED officials should tap a subset of the state advisory committee to provide conflict resolution.

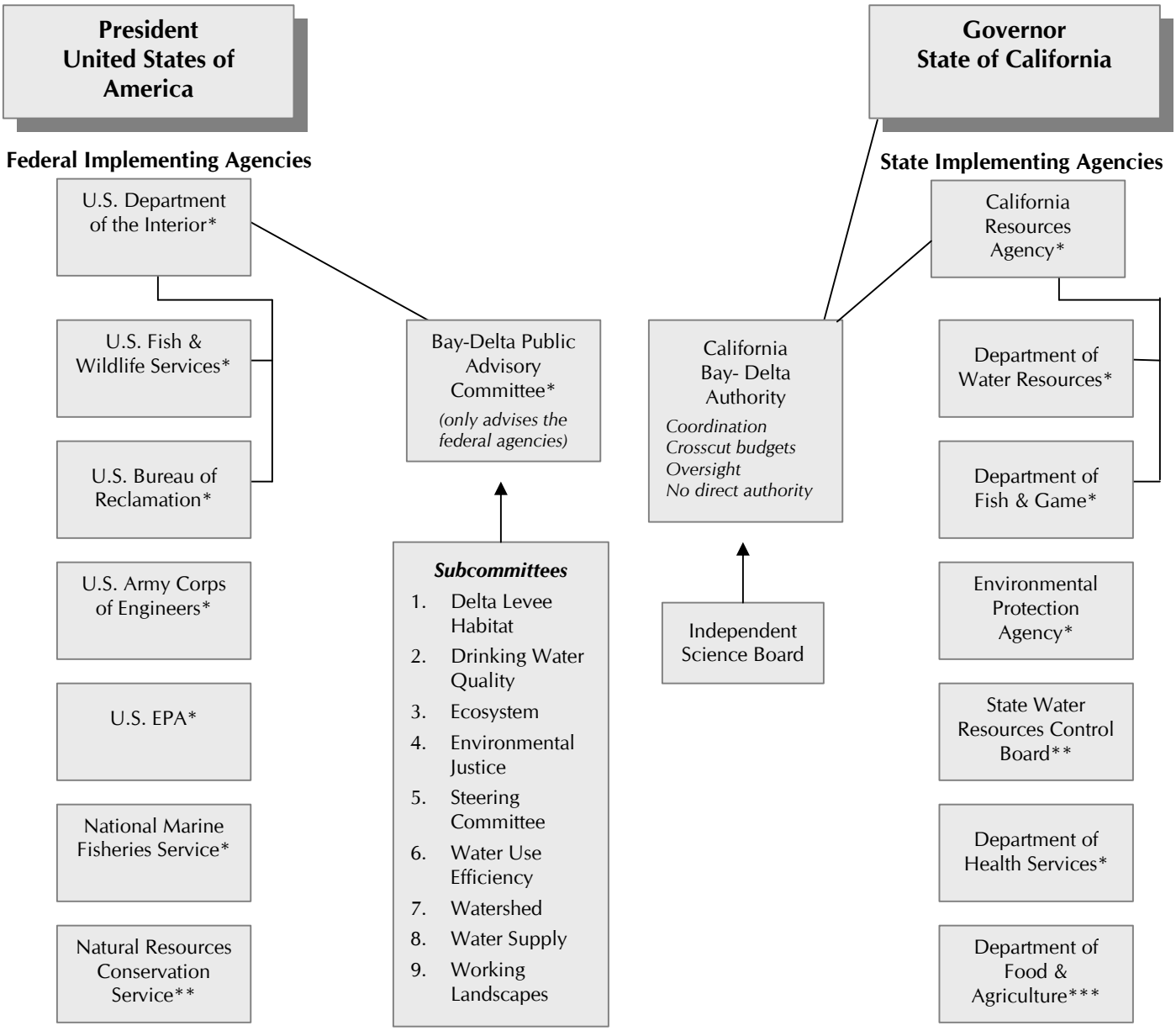
Legislative Role in Public Involvement: The Legislature should establish an independent oversight body to provide expert guidance to policy-makers on what is working, what is not and where changes are necessary. The oversight body should:

- ❑ **Find facts.** Policy-makers need clear, factual information upon which to base funding decisions, improve accountability and guide statutory changes.
- ❑ **Convene hearings.** Through public discussions, the oversight committee can inform the public and policy-makers on the degree of progress and strategies to enhance progress.
- ❑ **Recommend legislative changes.** Through annual reports, the oversight body should recommend legislative and other actions to support improved outcomes.

Charting Dysfunctional to Functional

The following pages include two organizational structures – the current organizational structure for CALFED and the Commission's recommendations for a revised structure.

Current CALFED Organization Structure

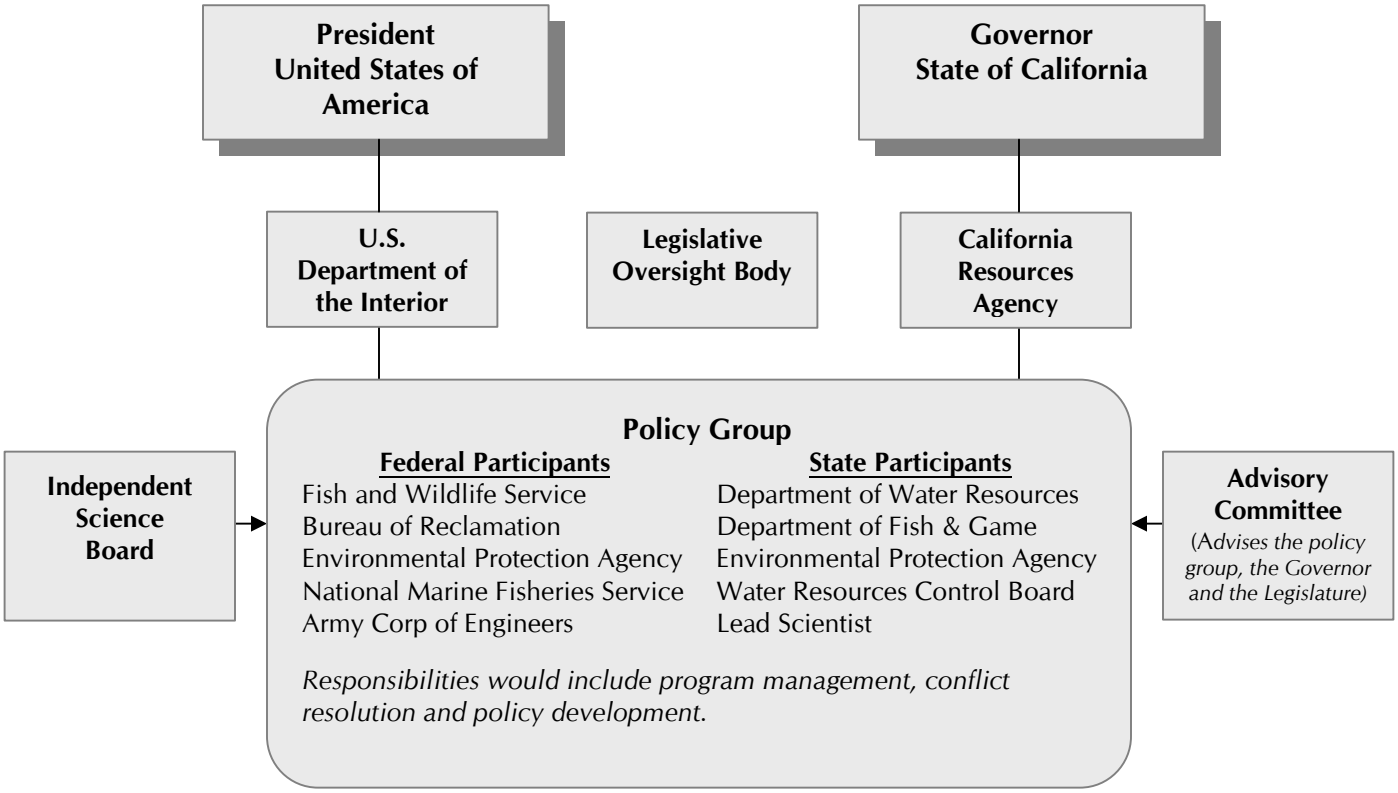


The current organizational structure of the CALFED program is challenging to depict in a chart because the structure is convoluted and reporting lines are not clear. For example, the chair of the CBDA is appointed by the Governor in consultation with the Secretary of the Interior, yet the CBDA was created within the Resources Agency. One member of the Bay-Delta Public Advisory Committee is selected to be a member of the CBDA, but the current BDPAC charter states that the role of BDPAC is to advise the federal government. Currently the BDPAC participant on the CBDA also was appointed as chair of the CBDA.

The organizational chart alone does not capture the greatest dysfunction of the existing structure, the lack of clear assignment of authority. The CBDA was not given the authority to implement the CALFED program and it is not clear within the implementing agencies who is in charge of CALFED implementation.

Implementing agencies that are represented on the CBDA board are depicted with one asterisk (*). The Natural Resources Conservation Service and the State Water Resources Control Board (**) are implementing agencies but are not represented on the CBDA board. The California Department of Food & Agriculture (***) is represented on the CBDA, but is not an implementing agency.

Proposed CALFED Organization Structure



The Commission's recommendations would separate and clarify the roles of management, public involvement and legislative oversight. The new structure would focus leadership authority, and on the state side would provide a direct line of accountability to the Governor. The recommended structure would encourage more integration among departments and increase accountability through the traditional government hierarchy. The structure would fortify public involvement by re-chartering the public advisory committee as a state entity to advise both state and federal agencies, the Governor and the Legislature. And while there is more than one model for legislative oversight of CALFED, the key purpose is to provide external and expert information to the public and policy-makers.

Introduction

On June 22, 2005, Governor Arnold Schwarzenegger asked the Little Hoover Commission to examine the governance of the CALFED Bay-Delta program as part of a comprehensive review. The Department of Finance was asked to review how approximately $3 billion have been spent in the program and the benefits associated with those expenditures. KPMG consultants were hired to review the internal management of the Bay-Delta Authority. The Governor's letter to the Commission is included in Appendix A.

The Commission agreed to produce an independent and comprehensive assessment of how the CALFED program is governed and practical recommendations for improving governance of the program and the role of the California Bay-Delta Authority.

In this study, the Commission systemically explored the elements of governance: Vision, mission, authority, organizational structure, procedures, resources and accountability. The Commission assessed how well these elements are aligned in policy and in practice. The Commission explored how the current governance structure might be modified to improve the performance of the CALFED program. And the Commission compared the governance of CALFED with other national models to identify other means of organizing multipurpose and multi-agency actions.

In three public hearings, the Commission heard from the architects of CALFED, including former Governor Pete Wilson and former U.S. Secretary of the Interior Bruce Babbitt, current and recent leaders, and a broad variety of stakeholders including environmentalists, environmental justice representatives and agricultural and urban water users. Other public hearing participants included leaders from other state-federal collaborative entities restoring ecosystems such as the Florida Everglades, the Chesapeake Bay and Lake Tahoe. The Commission also heard from academic experts and a panel that specifically discussed levee stability. The Commission provided time for public comment at each hearing. Witnesses are listed in Appendix B. Through its Web site and in response to telephone inquiries, the Commission encouraged written comments from all interested parties. A list of those who provided written comments is in Appendix C.

Through a questionnaire e-mailed to approximately 700 people who have been involved in some way with CALFED, the Commission sought comments to specific questions about governance. The Commission received 57 detailed responses providing extensive input from stakeholders as well as employees from state and federal agencies and the Bay-Delta Authority. Respondents who did not request anonymity are listed in Appendix C.

The Commission staff conducted nearly 100 interviews with current and former leaders in CALFED, legislators, federal and state legislative staff, scientists, stakeholders, and national experts involved with the development or implementation of similar programs in other states. Individuals interviewed by the Commission staff are listed in Appendix D.

The Commission solicited comments from the Bay-Delta Authority and Bay-Delta Public Advisory Committee and provided updates on the Commission's study progress at their public meetings.

The Commission sought to make its process transparent and accessible to the public. In addition to posting public meetings on the Web site, the Commission also published its draft work plan and interim documents that summarized information the Commission heard through hearings, interviews, written comments and survey responses. The first interim document summarized significant issues with the CALFED governance structure. A second document identified underlying tensions, summarized desired attributes and expectations of the governance system and distilled the domains and direction of needed improvements. The Commission encouraged public comments to clarify or amplify the issues identified in the documents or to identify other issues not covered.

All of this information informed the Commission's deliberations, which resulted in the recommendations contained in this report.

This introduction is followed by a history of the Sacramento-San Joaquin Bay-Delta, a summary of the crisis that led to CALFED, a review of the major milestones and early agreements, and an overview of the decade of discussions that led to the legislation creating the central component of CALFED governance, the California Bay-Delta Authority. The historical perspective is followed by four findings and recommendations.

All written testimony submitted electronically for each of the three hearings and the executive summary and complete report are available online at the Commission's Web site: http://www.lhc.ca.gov/lhc.html.

The Delta: From Swamp to Quagmire

The Bay-Delta is deceptively peaceful. Acres of flat farmland are lined with perfect rows of golden corn and walnut trees. Anglers perch atop the beds of rusty pickups parked along miles of winding river banks. Road signs announce communities with two and three figure populations and names like Walnut Grove, Dead Horse Island and New Hope Tract. Based on appearances, the Delta is an unlikely battleground for the state's perennial water war.

Bay-Delta Numbers	
57	islands
750	species of wildlife
1,100	miles of levees
1,150	square-miles surface area
10,000	years old
5 million	acres of farmland irrigated with Delta water
22 million	Californians supplied with drinking water

The Delta's subtlety also conceals its value and complexity. The Delta occupies just 1 percent of California's area, but drains nearly 40 percent of the state's total landmass. While Delta farms use just a sliver of the water; Delta water irrigates millions of acres of crops in the Central Valley, where 45 percent of the nation's fruits and vegetables are produced.

The Delta is replete with life. But, with its composition significantly altered by years of farming, pumping and urban development, several of the 750 different species of wildlife in the watershed – the brown pelican, red-legged frog and silvery legless lizard – live in incessant danger.[1]

Scientists refer to the Bay-Delta as an estuary – a "mixing zone" where freshwater streams meet salty ocean surges. The Bay-Delta is where California's chief rivers, the Sacramento and San Joaquin, merge and gush into the Pacific Ocean. It is the joint where two distinct ecosystems – the Sacramento-San Joaquin Delta and the San Francisco Bay – become hydrologically and biologically fused.

Anadromous fish, such as salmon, use the estuary as a conduit, moving between the Pacific – where they spend most of their adult life – and freshwater streams, where they spawn and die before the next generation of salmon emerges from gravelly nests in riverbeds.

Veterans of water policy define the Bay-Delta by its various values. To state planners, the Bay-Delta represents 15 percent of California's developed water supply and helps to slake the thirst of more than 22

million residents. To many California growers, it is the lifeblood of their $28 billion industry. And to biologists, it is a wildly robust and frighteningly imperiled ecosystem.

But to all of them, this 10,000-year-old wedge of channels and sloughs is where modern Californians attempt to reconcile the region's three major water imbalances: seasonal (snow and rain fall in winter, while water demand is high in the summer); geographical (the North is water-rich and the South is demand-heavy); and, climatic (weather patterns include periodic flooding and prolonged droughts).

Because of these burdens, the Bay-Delta also has become the focus of what has been touted as the world's most extensive – and expensive – water management program – CALFED.[2]

When we try to pick out anything by itself, we find it hitched to everything else in the Universe.

John Muir, *My First Summer in the Sierra*

The creation of CALFED in 1994 represented a cease-fire among the state's water warriors. But it also represented their acknowledgement of the reality that John Muir observed more than 100 years ago: "When we try to pick out anything by itself, we find it hitched to everything else in the Universe."[3]

Everything is connected in the Delta. Development throughout the watershed impacts water quality, bio-diversity and ultimately, the sustainability of perhaps the most important element of California's waterscape.

History of Change

By geologic standards, the Bay-Delta estuary is "young." It began forming about 18,000 years ago when glaciers from the last ice age melted into the ocean and caused the sea level to rise. The Pacific Ocean rose for 8,000 years before it finally spilled into a deep bedrock basin, creating the San Francisco Bay.

Inland, the Sacramento-San Joaquin Delta formed as the northern rivers and their many tributaries dragged debris and sediment from the Sierra toward the ocean, forming one monstrous swamp.[4]

Where there is water, there is life. The earliest recorded observations of the Delta included reports of salmon runs so dense that "rivers looked like pavement and the overhead skies blackened with migrating birds."[5] Grizzly bears, bald eagles, pelicans and river otter, all once common in California, fed off the fish migrating through the Delta.

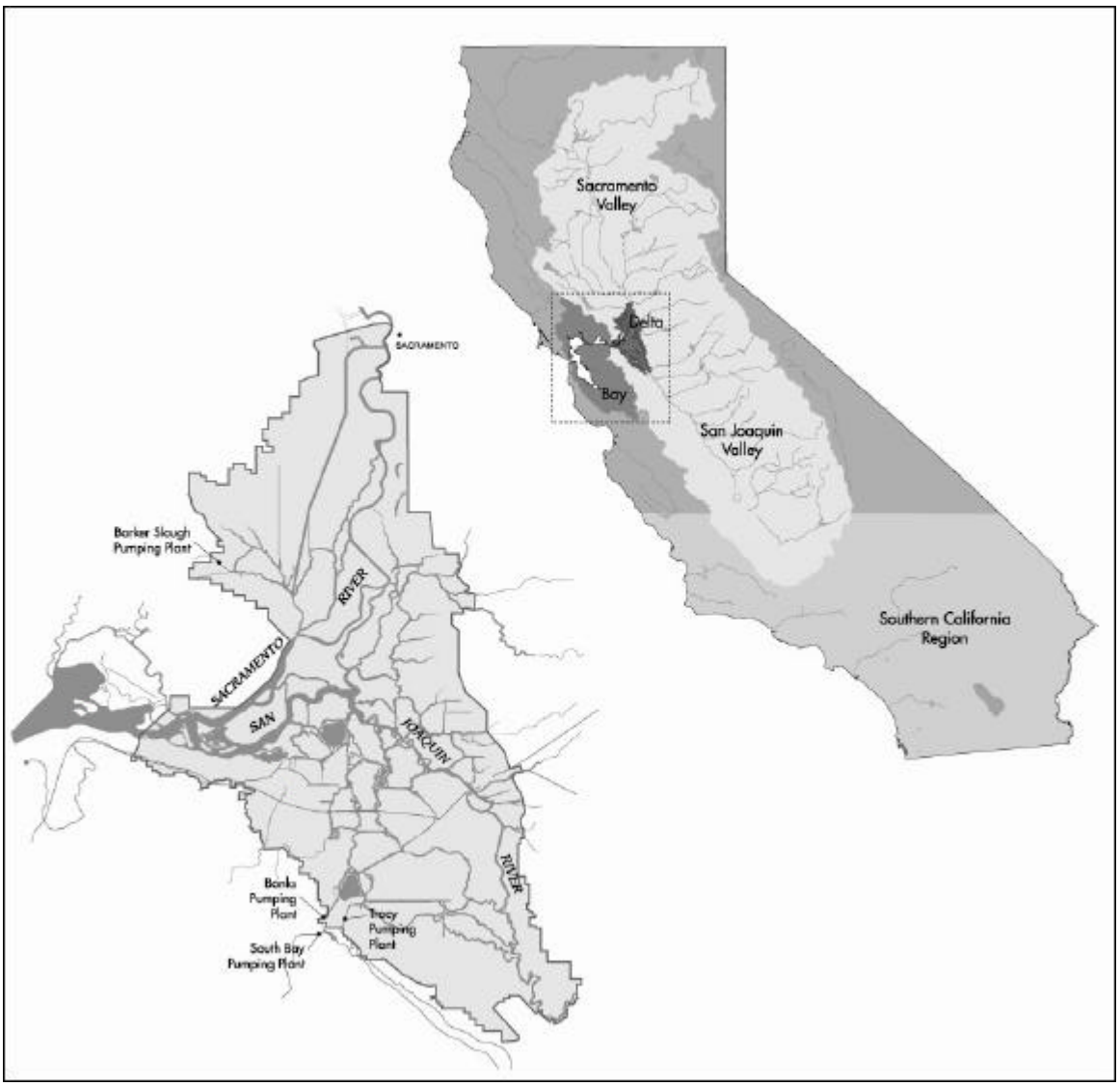
For nearly 10,000 years, people lived on, fished in and extracted water from the Delta and its watershed. Until the 1700s, human activity did

not cause significant damage. But over the past 250 years, population growth, coupled with the development of new technologies for extracting large amounts of water, has had profound impacts on the Delta.

Each year, highly engineered water projects divert nearly 9 million-acre feet, or roughly one-third of the watershed's supply of freshwater, significantly altering the physical composition of the estuary and threatening the species it supports.[6] Humans have modified the Bay-Delta more than any other major estuary in the United States.[7]

Today, the Bay-Delta retains about as much of its original stature as the Parthenon in Greece.

California Bay-Delta Watershed



Source: California Department of Water Resources

From Animals to Minerals to Vegetables

The Bay-Delta has a rich history of making people rich. Now supporting farmers and fishermen, the Delta also was once the center of a lucrative fur trade. Spanish explorers and New England settlers, who arrived in California at the end of the 18th century, encountered several fur-bearing fauna around the Delta watershed.

For 150 years, these entrepreneurs hunted beavers, coyotes, badgers, cottontails, bobcats, grizzlies and sea otter. By 1800, California's "golden" grizzly bears were completely killed off, followed by the burly tule elk by 1850.[8]

Diverting for Gold

After the decline of the fur trade, settlers were lured to California by the discovery of gold. Between 1848 and 1854, more than 300,000 fortune-seekers stormed into California and set up encampments along the Bay-Delta's tributary streams in the Sierra.[9]

Having depleted the gold in California's riverbeds, miners in 1853 started using high-pressure hoses to wash away gold embedded in the sides of mountains. Known as hydraulic mining, this process washed more than 1 billion cubic yards of silt into Central Valley streams – enough detritus to fill the Rose Bowl more than 1,200 times.[10]

The mining debris blocked salmon migrations, increased floods and impeded navigation, prompting the Ninth Circuit Court of Appeals to issue the nation's first environmental injunction, banning the practice in 1884.[11]

Creating the Agrarian Nation

Encouraged by federal and state legislation passed at the turn of the century, miners headed downstream to reclaim swamps in the Bay-Delta for agriculture. The region's flat topography, mild climate and abundant water supply made it ideal for growing corn, wheat and other agricultural staples. It also contains some of California's most fertile soil, a light peat common in marshland.

Water Measurement

When stakeholders talk about water, they talk about lots of water – millions of acre-feet. To get an idea of just how much, **one acre-foot** of water is equal to:

- 326,700 gallons
- A football field covered one-foot deep in water
- Enough water to support two typical urban families for one year

Millions of acre-feet of water move in and out of the Delta:

- Pre-development, 28 million acre-feet flowed out of the watershed, through the Delta and into the sea in a typical year.
- Now, 9 million acre-feet are diverted from the watershed and the Delta each year.
- 15 million acre-feet flow into the Delta annually, some of which is diverted to Delta farms and points south.

Source: Interagency Ecological Program, 2004.

By 1900, nearly half a million miners-turned-farmers had set up homes and small farms in the watershed.[12] They constructed small levees to hold back floodwater, at first by using their own hands and horsepower and later by using Chinese labor and steam-powered dredges.[13] By 1900, miners had converted 250,000 acres of Delta marsh into productive farmland.[14]

Today, levees don't just protect farmland. They channel freshwater to two large pumping plants located at the south end of the Delta. These pumps send water south to irrigate farms in the San Joaquin Valley and supply Southern Californians with fresh drinking water.

Despite their increased importance, most Delta levees are fragile, lying on sand and washed-out mining debris. According to former Reclamation Board member and geology professor Jeffrey Mount, there is a 2-in-3 chance that winter storm runoff or an earthquake will cause catastrophic levee failure in the Delta in the next 45 years.[15]

The conversion to agriculture has adversely changed the estuary, causing islands to sink, degrading water quality and destroying the benefits of a vast marsh.

By draining and farming wetlands, growers exposed peat to oxygen, triggering decomposition of the soil. Peat fires occasionally broke out, sometimes burning for weeks, often underground. As a result of compaction and erosion, some islands are sinking as much as one to three inches per year.[16] Today, several Delta islands are more than 15 feet below sea level.

The loss of wetlands is equally devastating. Wetlands – transitional lands between aquatic and terrestrial systems – provide vital resources necessary for estuary sustainability.[17] They support fish and wildlife, help to control floods and filter contaminated water. Today, only 5 percent of the Bay-Delta's original wetlands remain.[18]

What's in a Wetland

For decades, public policies encouraged farmers to "reclaim" marshes for agriculture. Recently, the benefits of wetlands have been documented and policies now encourage the restoration of marshes. Some of the benefits:

Water quality. Wetland plants such as tule and cattails filter water of harmful pollutants.

Flood control. Wetlands reduce the effects of floods by absorbing high river flows until flooding subsides.

Groundwater recharge. By slowing runoff, wetlands allow more water to percolate into aqueducts. The water can later be pumped to meet demands.

Oxygen production. Wetlands produce oxygen and biomass that forms the basis of the food web in the estuary.

Habitat. California wetlands support 41 of the state's rare and endangered species.

Source: Water Education Foundation, 2000.

The irrigation process used by farmers also decreases water quality by concentrating the salts and organic matter in water and releasing it back into the system as agricultural runoff.[19]

Large Scale Water Projects

Between 1900 and 1940, California experienced significant urban and commercial growth. Rail transit facilitated the exchange of goods and increased the market for Central Valley farmers and commercial fishermen. Urban growth in and around the Bay Area sparked the establishment of the state's first municipal water agencies and some of the first water development projects impacting the estuary.

The Mokelumne Aqueduct began carrying water from the Mokelumne River to the East Bay in 1929. And in 1935, the city of San Francisco dammed the Tuolumne River, flooding the Hetch Hetchy Valley and diverting the water through a 160-mile pipeline to people living by the Bay.[20]

California Water Projects

Central Valley Project

The CVP was authorized by Congress in 1935 initially as a flood control project. Subsequently, the project was assigned to the Bureau of Reclamation, which was given the charge to construct water facilities for agricultural and urban use including Shasta Dam, the Delta Cross Channel and the Contra Costa Canal. CVP is subsidized by federal taxpayers. Ninety-eight percent of the 7 million acre-feet of CVP water is delivered to growers in the Central Valley.

State Water Project

The SWP grew out of the first State Water Plan published in 1957, which called for the construction of new water facilities primarily for flood control and urban water supplies. The SWP was funded by bonds, which are repaid by customers of the project. The SWP was not completed. Several projects were stalled by economic and environmental concerns, including the Peripheral Canal, which voters rejected in 1982. Completed facilities include Oroville Dam and the California Aqueduct.

California's agricultural industry received a huge boost in the early 1940s when the federal government took over a state flood control plan and expanded its focus to include irrigation of the fertile Central Valley. Operated by the U.S. Bureau of Reclamation, the Central Valley Project is one of the world's largest water projects, delivering 7 million acre-feet of water each year, 98 percent of which flows to farmland in the Sacramento and San Joaquin valleys.[21]

The CVP also generated substantial environmental consequences and political concerns. CVP dams at Shasta and Red Bluff on the Sacramento River, and Millerton on the San Joaquin River, blocked Bay-Delta tributary streams, destroying wildlife and their habitat. CVP canals carry water that once supported fish away to farms and cities. And tainted runoff from farms in the western San Joaquin Valley has poisoned wildlife.

The CVP also created a legacy of economic and social controversies by extending subsidized water prices beyond small family farms to large corporate-owned farms.

Source: California Department of Water Resources

Canals for Consumers

The longest stretch of fresh water in California runs 450 miles, is 40-feet wide, 30-feet deep and lined with concrete. The California Aqueduct is the state's longest artificial river and – in much different ways than its natural counterparts – sustains life by bringing water to arid Southern California.

The California Aqueduct also is the largest facility constructed by the State Water Project. Completed in 1973, the canal carries water from the Delta, through the San Joaquin Valley to nearly 20 million residents of Southern California.[22]

The California Aqueduct and other SWP facilities were authorized under the Burns-Porter Act passed by the Legislature in 1957. Between 1940 and 1960, the population of California doubled and created demand for new water projects that, unlike the CVP, would supply urban centers.[23]

The project captures runoff behind Oroville Dam, and in a typical year delivers 3 million acre-feet of Bay-Delta water. Some of that water serves the Bay Area, but most of it goes to southern San Joaquin Valley farms and Southern California cities.

For much of their histories, the CVP and SWP were operated with little regard for the environmental damages they caused. Faced with urban growth, California leaders discounted levee fragility, declining fish populations and deteriorating water quality, all signs that the health of the state's most important watershed is at risk.

The Peripheral Canal

One of the primary reasons the SWP has failed to meet its original goals is due to the defeat of the peripheral canal. The proposal to build this 42-mile long ditch originated as part of the SWP in 1960. But like most projects involving water, it took another 22 years before it was approved by the Legislature and endorsed by the Governor.

The canal would have diverted water from the Sacramento River around the eastern edge of the Delta to pumping stations near Tracy.

Northern Californians opposed the canal, perceiving it as another way to suck more water out of the Delta to enrich Southern California developers. The South unsuccessfully countered that a peripheral canal is a safer way to export water than pumping, which kills fish and increases the risk of saltwater intrusion.

The canal was defeated by referendum in 1982 and has since served as an annoying reminder to state officials of the seemingly unbridgeable North-South divide. CALFED's Record of Decision calls for officials to determine by 2007 whether the State can maintain the "through-Delta" conveyance plan, or whether an "isolated conveyance facility" needs to be reconsidered.

Proponents fear this issue will invoke the same reactions and further polarize discussions about how to sustainably meet the state's water demands.

Enacting Awareness

Environmental awareness dramatically impacted the development of water resources in California. State and federal lawmakers passed several laws aimed at preserving natural resources for future generations and repairing the damage caused by decades of environmental indifference. In terms of restoring the Bay-Delta, state and federal clean water and endangered species acts have produced significant results.

The initial focus of water pollution control laws was on "urban" sources, requiring sewage and industrial discharges to be treated and reduced. More recently, growers have been required to ensure that runoff from irrigated lands and animal facilities do not befoul waterways.

Protection of endangered fish, wildlife and plants in the Bay-Delta has improved under state and federal acts that prevent farming and development from making life-threatening alterations to their habitat.

Environmental Protection in the Delta

Endangered Species Acts were passed by both the state and federal governments to protect endangered species and the habitat on which they depend. State and federal ESAs prohibit the development of new projects or operations of existing projects that put protected species or their habitat in jeopardy.

Porter-Cologne Water Control Quality Act was enacted in 1969, establishing state water quality standards that served as the basis for the federal Clean Water Act. The act is enforced by the State Water Resources Control Board and the nine regional water quality boards.

Clean Water Act was passed by Congress in 1972. The law mandated that states, in coordination with the U.S. Environmental Protection Agency, set and enforce water quality standards that ensure the nation's waterways are clean enough to support swimming and fishing.

Environmental Equality

Assessing the full impact of decisions has gone beyond natural resources to consider the people living in communities that are impacted by large public projects.

"Environmental justice" grew out of the civil rights and anti-toxics movements in the 1960s and 70s.[24] After a study commissioned in 1987 found a high correlation between a person's race and the likelihood of living near a hazardous waste facility, civil rights and environmental protection advocates joined forces to lobby politicians for environmental equality.

In 1991, the first national summit on Environmental Justice was held in Washington, D.C., and in 1994, President Clinton signed an executive order to address environmental injustices imbedded in federal laws.[25]

In turn, environmental justice became a component of CALFED and was included in the Record of Decision (ROD) that specifies the goals and objectives of the program. As envisioned by CALFED architects, for example, discussions about the future of the Delta would include the access of all people to clean drinking water.

In essence, environmental protection and equality laws have forced people to acknowledge the impacts of alterations to the Bay-Delta and surrounding communities. They prevent people from ignoring what John Muir understood more than a century ago; everything is connected to everything else.

Another Invasion

Humans are not the only creatures altering the Bay-Delta. Hundreds of non-native species have invaded the estuary's watershed, some purposefully introduced and others unintentionally dumped from the ballast of ocean-going freighters.

The impact of invasive species is poorly understood. Some species, like the striped bass, were introduced to support a commercial fishery and are not believed to cause significant harm to the estuary. But others – such as Asian clams and cordgrass – are toxic, altering the food web and complicating restoration efforts.

Under natural circumstances, the Delta may have been better able to fend off foreign species. Some researchers suggest that in an altered condition the strength of the estuary's "immune system" is reduced. As a result, more intervention to prevent and eliminate invasive species is necessary.

Sources: Association of Bay Area Governments. November 2002. *San Francisco Estuary Project: Aquatic Organisms and Wildlife*. Also Bay Area Monitor. June/July 2003. *Around the Edges: Bayshore News*.

In Pursuit of a Solution

Any remaining skepticism of nature's interconnectedness evaporated with the onset of the 1987-1992 drought. As a result of six consecutive years of below average rainfall, urban and agricultural water deliveries slowed, water quality deteriorated and two fish species were pushed to the brink of extinction.

During these six years, the Sacramento River received just 56 percent of the average runoff and the San Joaquin River received just 47 percent.[26] During the driest of the six years, 1991, barely 11 million acre-feet of water flowed through the Delta, reducing SWP deliveries to just 10 percent of urban demand.[27]

Water quality in the Bay-Delta is largely dependent on freshwater flows, which dilute saltwater and agricultural runoff that enter the estuary. In 1988, the U.S. Environmental Protection Agency warned the State that diversions from the Bay-Delta were degrading water quality in violation of federal standards. The agency threatened that if California's Water Resources Control Board did not draft and enforce stricter guidelines for water quality, including the impacts of water diversions from the estuary, the federal government would intervene.

As Governor Pete Wilson and the state board worked on standards that would improve water quality without jeopardizing agriculture, environmentalists mounted legal attacks against the state and federal governments for failure to protect Delta fisheries. Two species unique to the estuary – the winter-run Chinook salmon and Delta smelt – faced extinction before lawsuits won them legal protection under the endangered species laws.

Congress Joins the Fray

In 1992, Congress further attempted to repair environmental damage by passing the Central Valley Project Improvement Act (CVPIA). Taking responsibility for the negative impacts of CVP facilities, Congress amended the original legislation by reallocating a portion of CVP supplies to support fish and ecosystem restoration. By the time CVPIA was passed, nearly one in every three salmon on the winter-run was lost to

SWP and CVP pumps and Delta smelt experienced a 90 percent drop due to changes in water quality.[28]

In addition to institutionalizing the commitment to wildlife, CVPIA set up the state's first official system of water marketing, allowing for the sale of water among users. For growers and developers in the south, CVPIA is a mixed blessing. On one hand, by dedicating some CVP water to wildlife protection, CVPIA has the potential of limiting the amount of water that reaches them. On the other hand, by setting up a system for water transfers, CVPIA offers a solution for meeting Southern California's water demands as the State scales back pumping from the Colorado River.

Certainly, CVPIA added a new layer of regulations that helped solidify stakeholders' belief in the need for a collaborative program to sort through California's water conflicts.

Collaborative Compromise: The Birth of CALFED

In this climate of chaos, the cornerstone for future consensus was laid when three notorious adversaries – environmentalists and agricultural and urban water users – agreed to a truce. After years of facing off in courts, these stakeholders realized that the only way for any of them to achieve their seemingly conflicting goals was to find common ground. In what became known as the "three-way process," these stakeholders held a series of meetings that spawned the collaborative efforts that eventually led to a formal truce in the water wars.

Club Fed. In response to harsh criticism over the lack of coordination to address the crisis in the Delta, four federal agencies formed the Federal Ecosystem Directorate to communicate and collaborate on Delta issues. Participating agencies included the Environmental Protection Agency, the Fish and Wildlife Service, the Bureau of Reclamation and the National Marine Fisheries Service. This group became known as "Club Fed" and they eventually signed an "Agreement for Coordination on California Bay-Delta Issues" that committed the agencies to collaborate toward an ecosystem-based approach.

By 1993, the federal EPA had grown tired of waiting for new standards from the state and drafted new regulations for exports that would keep more water in the Delta to enhance fisheries and water quality at the expense of growers and cities.[29] Governor Pete Wilson proposed less draconian cuts to Delta exports than the federal standards crafted by the EPA. The EPA rejected Wilson's proposal and as a result the Governor joined forces with Interior Secretary Bruce Babbitt to propose alternative standards and a program for Delta restoration.

CALFED. In June 1994, Club Fed and the state administration signed an agreement to coordinate activities in the Delta, particularly the development of Delta water quality standards. This official collaboration of California and the federal government on water issues became known as "CALFED." The state and federal agencies and stakeholders worked together over the next six months to develop a science-based proposal for water quality standards to meet a December 1994 deadline imposed on the State as a result of an environmental lawsuit.[30]

Bay-Delta Accord (The Accord). On December 15, 1994, the State, the federal government and stakeholders representing many local water agencies and environmental organizations signed an agreement on water quality titled, "Principles for Agreement on Bay-Delta Standards between the State of California and the Federal Government," but more commonly referred to as the Bay-Delta Accord. The Accord marked a critical milestone in California water history, moving the entities from conflict to collaboration. It also was the beginning of a long-term planning process to improve the Delta and increase water reliability.[31]

Six months after the Accord was signed, state regulators adopted new water quality standards for the Delta that were less severe than those proposed by the EPA in 1993, and less generous to growers and urban water users than those proposed by Wilson.[32] In addition, the Accord required state and federal agencies to coordinate on two other management issues: meeting regulatory requirements of the State Water Project and the Central Valley Project operations and developing long-term solutions to problems facing the Bay-Delta. The accomplishment of these two objectives is referred to as "Phase One" of CALFED.

Phase One of CALFED concluded in September 1996, when state and federal agencies released a Notice of Intent and Preparation, which identified problems facing the Delta and offered a range of solutions. During Phase Two, these solutions were studied and evaluated based on their environmental impact to the Delta. A core group from Club Fed and the state agencies, referred to as the policy group, met over four

Bay-Delta Governance Timeline

Pre – CALFED	1982	Peripheral canal defeated in state referendum
	1987	Six-year drought began
	1988	U.S. EPA warned State that diversions caused water quality violations
	1991	EPA declared State water quality standards violate Clean Water Act
	1992	Nearly 1 in 3 winter-run salmon killed in pumps, President signed CVPIA
	1993	Smelt listed "threatened" after populations decline 90 percent, "Club Fed" formed
	Dec. 1994	*Bay-Delta Accord* signed
Phase One	1995	Policy Group began meeting, Bay-Delta Advisory Council formed
	1996	*Notice of Intent and Preparation* released
Phase Two	June 2000	*The Framework* published by CALFED
	July 2000	*Final Programmatic EIS/EIR* published
	Aug. 2000	*Record of Decision* and *IMOU* adopted
Phase Three	July 2001	Bay-Delta Public Advisory Committee formed
	2002	California Bay-Delta Act passed
	Aug. 2003	First meeting of CBDA
	2004	Congress authorized Federal CALFED participation
	Dec. 2004	Finance Plan adopted by CBDA but largely rejected by Legislature and stakeholders
	June 2005	Governor requested CALFED review
	July 2005	State budget grants CALFED less funding than requested

years to resolve the regulatory requirements and develop the long-term plan. Simultaneously, the Bay-Delta Advisory Council was formed and held dozens of meetings to gather public input.

The purpose of Phase Two was to make sure that all of the solutions proposed by CALFED met standards set by the National Environmental Policy Act (NEPA) and the California Environmental Quality Act (CEQA). Under these statutes, environmental impact reports must be prepared and approved before projects can be implemented.

California's Water Future: A Framework for Action (The Framework). In June 2000, CALFED produced a document, "California's Water Future: A Framework for Action," that was used as a tool by the secretary of the Resources Agency and the Governor's office to persuade CALFED participants to reach agreement on the Final Programmatic Environmental Impact Statement/Environmental Impact Report and the Record of Decision.[33] The document provided a specific set of actions combined with a vision of how these actions fit into a balanced long-term solution. The Framework also provided details for what would become Stage One of implementation, the first seven years of the long-term plan.

In July 2000, CALFED participants published the Final Programmatic EIS/EIR, outlining alternative long-term solutions to restore the ecosystem while improving the quality and reliability of the water supply. Shortly after, on August 28, 2000, the historic Record of Decision was formally adopted as a joint federal-state document.

Record of Decision (ROD). The Record of Decision provided a 30-year plan for the Bay-Delta and was signed by 13 federal and state agencies formally agreeing to work collaboratively toward achieving balanced improvements. The ROD was designed to provide a blueprint to address the needs of the major stakeholders and identified four core program goals: water reliability, ecosystem restoration, water quality and levee system integrity. In addition to governance, the ROD established 11 program components which are detailed on the following page, including a science program to improve and increase the scientific basis for decision-making. Upon adoption of the ROD and Final Programmatic EIS/EIR, the implementation phase of CALFED, Phase Three, began.

Implementing Memorandum of Understanding (IMOU). The IMOU accompanied the ROD and clarified the roles and responsibilities of the agencies participating in implementing the CALFED Bay-Delta program. In September 2003, an Amended and Restated Implementation Memorandum of Understanding was signed to further clarify the roles of the agencies after the creation of the California Bay-Delta Authority.

CALFED Program Elements and State and Federal Implementing Agencies

Levees. The goal of the levee program is to improve the integrity of the levee system and provide long-term protection. Program elements include: base-level levee protection, special improvement projects, levee subsidence control and emergency response planning.	
Department of Water Resources Department of Fish & Game	*U.S. Army Corps of Engineers*
Water Quality. Achieve high-quality Delta drinking water. Activities include addressing San Joaquin Valley drainage, source water protection, wastewater treatment, storage and conveyance improvement.	
State Water Resources Control Board Department of Health Services	*U.S. EPA*
Water Supply Reliability. Promotes water supply reliability by improving storage and conveyance capacity, cooperation to avoid conflicts between water supply, ecosystem and water quality needs, and provides clear consistent implementation of regulatory and project operation decisions.	
Department of Water Resources	*U.S. Bureau of Reclamation*
Ecosystem Restoration. Improve habitats and support stable self-sustaining populations or aquatic and terrestrial species, including recovery of species listed under the federal and state Endangered Species Acts.	
Department of Fish & Game	*U.S. Fish & Wildlife Service* *U.S. National Marine Fisheries*
Water Use Efficiency. Reduce water waste and competing demands for Bay-Delta water by accelerating conservation and water recycling.	
State Water Resources Control Board Department of Water Resources	*U.S. Bureau of Reclamation*
Water Transfer. Remove physical, institutional and legal barriers to water transfers between willing sellers and buyers to promote an effective water market.	
State Water Resources Control Board Department of Water Resources	*U.S. Bureau of Reclamation*
Watershed. Improve Bay-Delta water supply reliability, flood management, environmental restoration and water quality by implementing improved local watershed management practices and activities.	
Resources Agency, Department of Water Resources State Water Resources Control Board Department of Fish & Game	*U.S. Natural Resources Conservation Service* *U.S. EPA* *U.S. Fish & Wildlife Service*
Storage. Expand surface and groundwater storage capacity to meet the needs of a growing state population, improve water quality and support ecosystem restoration.	
Department of Water Resources	*U.S. Bureau of Reclamation*
Conveyance. Utilize conveyance through the Delta with the goal of optimizing Delta conveyance of state and federal water exports.	
Department of Water Resources	*U.S. Bureau of Reclamation*
Science. A crosscutting program intended to integrate scientific management and the best science practices in all CALFED program elements.	
California Bay Delta Authority	
Environmental Water Account. Provide water for the protection and recovery of fish and wildlife by the acquisition of alternative sources of water to augment Delta outflows benefiting the ecosystem.	
Department of Water Resources Department of Fish & Game	*U.S. Bureau of Reclamation* *U.S. Fish & Wildlife Service* *U.S. National Marine Fisheries*

Source: CALFED Bay-Delta Program. Record of Decision. August 28, 2000. 2.2 Plan of Action. California Water Code. Section 79441.

Evolution of Governance

From the beginning, CALFED participants realized the unique collaboration born from years of conflict and court battles would need to be institutionalized to ensure that the effort would withstand natural shifts in priorities and changes in both state and federal administrations. As the ink dried on the historic 1994 Accord, launching the multi-year planning process that led to the 2000 Record of Decision, collaborators in the CALFED process began researching and discussing long-term governance structures.

Over the course of eight years, CALFED participants met, held workshops, testified at hearings and eventually came to a consensus on principles for a governance structure. Despite the consensus on general parameters, certain issues remained unresolved. As a result, some of the key components identified in the ROD, such as budget authority, were not included in the legislation creating the central component of CALFED governance – the California Bay-Delta Authority.

In the Beginning

The first conversations about a governance structure for CALFED began in 1994. In addition to resolving the dispute over water quality, the 1994 Accord committed state and federal agencies to coordinate two challenges – meeting regulatory requirements imposed on water project operations and developing long-term solutions to problems facing the Bay-Delta.[34] One key element of the long-term solutions was the commitment to implement and finance "Category III" activities, which provide environmental benefits to the Bay-Delta other than increased flows.[35] These types of activities include the installation of fish screens and ladders, land acquisition and research and were part of a comprehensive ecosystem restoration plan.[36] Committees and work groups were established to tackle various issues, and the Category III Institutional Structure Work Group was tasked with evaluating a governance structure for the ecosystem restoration plan.

Category III Institutional Structure Work Group. The work group analyzed institutional alternatives for the long-term implementation of Category III measures in the Accord.[37] Participants included federal and state agency representatives, the California Urban Water Association,

various agricultural water exporters and environmentalists. The work group analyzed the advantages and disadvantages of five potential governance structures to oversee ecosystem restoration:

- ✓ Joint Powers Authority
- ✓ Non-Profit Public Benefit Corporation
- ✓ Memorandum of Understanding
- ✓ Natural Community Conservation Plan
- ✓ National Fish and Wildlife Foundation

In addition, the group concluded that other alternatives should be evaluated. While the report did not make any recommendations, these early endeavors served as a basis for future discussions.

Early Proposals

The next formal committee to consider governance was one of six work groups established within the Bay-Delta Advisory Council (BDAC). BDAC was chartered under the Federal Advisory Committee Act in May 1995 and members were selected by Interior Secretary Bruce Babbitt and Governor Pete Wilson and appointed by the Secretary. The council was established to provide stakeholder input to the CALFED Bay-Delta program and included some 30 stakeholders.[38] In June 1995, BDAC held the first of 38 meetings that occurred over five years to gather public comments on the CALFED program. In its first year of meetings, there was widespread concern among the stakeholders regarding the implementation phase of the Bay-Delta program. As a result, the BDAC Assurances Work Group was formed in 1996 to establish assurances, or guarantees, for the environmental community and urban and agricultural water users.[39]

Bay-Delta Advisory Council Assurances Work Group. The Assurances Work Group was tasked with establishing a mechanism to provide a high degree of confidence that the program goals would be met. Environmentalists wanted certainty that water would be available for ecosystem restoration. Urban and agricultural water users wanted certainty that future water flows would be stable and reliable. The group considered many topics, however, one central issue was a long-term governance structure to ensure the CALFED objectives were met.

While BDAC and its work groups were meeting during the planning phase of CALFED, key decisions were being made by the CALFED policy group, a coalition of state and federal agencies that provided direction and ensured decisions by the implementing agencies were consistent with the goals and objectives of CALFED.[40]

Members of the Assurances Work Group asserted that the policy group was not an appropriate entity to manage the implementation phase of CALFED and the ecosystem restoration effort in particular. Most policy group meetings were not public meetings and stakeholders were concerned with the lack of transparency and the lack of opportunity for public input.[41] Additionally, environmentalists asserted that the degradation of the Bay-Delta was caused, in part, by the highly-fragmented jurisdiction over the region and its natural resources, and did not believe this same fragmented governance structure should be entrusted with restoring the estuary.[42]

Other reasons for considering a new governance entity were more administrative – CALFED lacked the ability to hire staff, receive or administer funding or enter into contracts. There also was agreement that new functions would emerge in the implementation phase – such as budget coordination, permitting, public participation, research and monitoring – and these could be performed more efficiently and effectively by an integrated entity.[43]

In late 1997, the Assurances Work Group asked the Natural Resources Law Center to identify key issues and options for a new ecosystem restoration entity. In February 1998, the center published preliminary considerations. The effort generated a great deal of controversy, particularly with the CALFED agencies, because it described a new entity and the agencies did not agree that a new entity was a necessity.[44] In March 1998, the center published a second document, clarifying that it was not endorsing a new entity, merely defining potential options.[45]

Based on feedback to its February and March documents, the center conceded that creating a new ecosystem entity may not be politically viable, as there was significant agency resistance to any dramatic bureaucratic restructuring. It recommended that other options be considered, including reforms that would provide the desired degree of inter-agency coordination and a greater role for stakeholders, but would leave the existing structure intact.[46]

Anticipated Problems

When the Bay-Delta Advisory Council was considering options for a CALFED governance structure, state and federal agencies expressed concerns regarding the creation of a new governance entity. These included:

- Existing agencies already had the ability to carry out the CALFED program, including coordination.
- New entities are difficult to establish and usually less successful than hoped, as evidenced by failures in other parts of the nation.
- A new entity could become an "orphan" agency with no institutional support for funding or programs.
- Existing CALFED agencies might disinvest from the CALFED process.
- A new entity might increase, not reduce the problem of overlapping operational and regulatory missions.
- One interest group could "capture" the entity, leading to the withdrawal of other stakeholders.
- Funding for existing agency programs could be eliminated or reduced to fund the new entity.

Source: Alf W. Brandt, Assistant Regional Solicitor, U.S. Department of the Interior. September 14, 1998. Memo to Club Fed Management Regarding a "New Entity" for Delta Ecosystem Restoration. Tom Hagler, U.S. Environmental Protection Agency. September 9, 1998. Draft memo to Club Fed Management Regarding a "New Entity" for CALFED – Issues and Proposals.

In an April 1998 document, the center recommended broadening the scope of the discussion, stating that "it was impractical to consider the design of a new ecosystem restoration implementation entity separately from the related issue of the future, if any, of a continued or revised long-term CALFED policy-level body."

Despite the center's recommendation, stakeholders continued to pursue options for an ecosystem entity and additional documents were submitted to the work group building on the center's preliminary proposal.[47] The vision for the new entity articulated by the agricultural and urban water users is reflected in the box.

In September 1998, federal participants from the Department of the Interior and from the U.S. Environmental Protection Agency sent memos regarding the work on a potential new governance entity to the Club Fed management. Both expressed concerns that after two years of meetings, there was little consensus regarding a new entity to implement CALFED. There was considerable skepticism from the state and federal agencies as to the need for a new entity.[48] And while many stakeholders agreed on the need for a new entity, there was little agreement on what the new entity should do or how it should be governed.

Later in 1998, the Assurances Work Group, in cooperation with the BDAC Ecosystem Restoration Work Group, recommended to BDAC that a new "ecoentity" be established to implement the ecosystem aspects of CALFED. Members of BDAC expressed support for the recommendation, but suggested that a new ecoentity should not be established without resolving the larger question of overall CALFED governance during the implementation period.[49] Early in 1999, the Assurances Work Group was reconfigured as the Governance Work Group, and BDAC requested the group carefully examine a means for implementing the emerging CALFED program elements.

Agricultural and Urban Water Users Vision for an Ecosystem Entity

"The overreaching purpose of the Ag/Urban policy group's recommended approach to ecosystem restoration is not to supplant the existing regulatory authority of agencies…It should be emphasized that the new ecosystem entity will not possess regulatory authority. The goal is to implement a non-regulatory, highly coordinated, well-funded, market-based adaptive management plan that will protect and improve the environment, thereby avoiding the need for agencies to exercise their existing regulatory authority."

Source: Cliff Schulz. *Ecosystem Entity White Paper*. Included as an attachment to the July 7, 1998 BDAC Assurances Work Group Agenda.

Building Consensus

Bay-Delta Advisory Council Governance Work Group. The Governance Work Group began meeting in February 1999 to develop a plan for a long-term overarching governance structure for CALFED and an

additional governance entity for ecosystem restoration. The group hired the California Environmental Trust to assist in developing governance principles and a preliminary proposal. Throughout the summer of 1999, the trust organized workshops, off-site meetings and retreats to enable the key participants from the state and federal agencies to come to agreement on the governance issues. In December 1999, the Governance Work Group issued a draft proposal with 15 agreed-upon principles for the long-term governance of CALFED. The group would continue to refine the draft and regularly inform the policy group on governance structure issues as the policy group crafted the final EIS/EIR Implementation Plan and the ROD.

In July 2000, CALFED issued the Final EIS/EIR Implementation Plan, which included 13 principles and a proposal for a governance structure. In most ways, the proposal mirrored the principles defined by the Governance Work Group.[50] The principles are detailed in the box on the following page. The proposal assumed that state and federal legislation would be needed to create a new overarching governance entity – a commission. However, the proposal allowed for a state entity that would collaborate with the federal entities even if the federal government did not enact enabling legislation.

There were some key variances between the early proposals of the Governance Work Group and the proposal in the implementation plan. Two key principles were dropped: one would have created a separate ecosystem restoration entity and the other defined the responsibilities of the overarching commission:

> *The commissioners should serve as the decision-making body for the CALFED Bay-Delta Program, and the executive director and the commission staff should be responsible for program direction and oversight. Responsibility for program direction and oversight should be retained by the commission in order to reduce fragmentation of responsibility and accountability, and maximize coordination and integration among the program elements.*[51]

There were other differences as well. In the work group plan, an executive director would be appointed by the commission and in the implementation plan, the executive director would serve at the pleasure of the Governor and the Secretary of the Interior. Likewise, the scientific review board in the work group plan would be appointed by the board, whereas under the implementation plan, the Governor and the Secretary of the Interior would appoint an independent science board.

The governing boards in both plans were dominated by state and federal officials. The work group plan called for 19 members – six public

Principles of Long-Term Governance

The Final EIS/EIR Implementation Plan issued by CALFED in July 2000 included the following 13 principles of long-term governance:

Federal/State Partnership. *The CALFED Program, as defined in the final EIS/EIR and accompanying documents, should be carried out through a joint state and federal government partnership.*

Accountability. *There should be a clear point of, and process for, accountability of the program to the Legislature, the Congress and the public.*

Commission. *A new commission should be created to direct efforts to achieve CALFED Bay-Delta Program goals and objectives.*

Membership. *The membership of the CALFED commission should be made up of state, federal, tribal and public members. Public members should represent a broad array of interested constituencies. State and federal members should be representatives at the highest level of the agency organization.*

Leadership. *The governing structure and authorities of the commission should be designed to attract effective leadership.*

Changes in Authorities. *The commission will not exercise or supplant any regulatory authorities. However, changes in specified program and funding authorities should be made in legislation to consolidate or coordinate management of each program area.*

Agency/Tribal Participation. *The commission should establish a process to support participation and coordination with agencies (federal, state, and local) and tribes involved in and affected by the CALFED program who are not members of the commission. The commission should facilitate government-to-government consultation with the tribes.*

Public Involvement. *The commission's meetings should be open and public, and the commission should seek ways to maximize public knowledge of, and involvement in, its work. The commission should support involvement in the program at a community-based level.*

Program Management. *Program management for each of the program areas should be specified in legislation establishing the commission. Each program area should be evaluated to determine the appropriate entity for assuming program management functions. Responsibility for program management will vary between program areas depending on the nature of the program and actions, the expertise of agencies, and the ability of the agency to manage the programs without significant conflicting mandates.*

Comparable Authority over Program Areas. *Each of the program areas should have the same degree of autonomy from, as well as the same degree of accountability to, the commission. For each program area, the commission should exercise a comparable degree of authority over specified funding and programs.*

Funding. *Funding for implementation of the CALFED program should be appropriated directly to the commission for those activities assigned to the commission. For CALFED programs managed by another state or federal agency, funding for the program should be appropriated directly to that agency, with control language requiring commission review, coordination, and approval of program plans, priorities, and implementation.*

Crosscut Budget. *For those funds and programs not under commission approval but which are related to CALFED (to be specified in an interagency MOU), the appropriate agencies should participate in preparing an annual crosscut budget to ensure coordination with the CALFED program.*

Legislative Reporting. *The commission should serve as the focal point for contact on the CALFED program with Congress and the Legislature, and should provide annual status reports on the program.*

Source: CALFED Bay-Delta Program Implementation Plan. July 2000.

members, a tribal representative, six members representing state agencies and six members representing federal agencies.

The implementation plan proposed a 12-member board – four members from state agencies, four members from federal agencies and four members from the public representing agricultural water users, urban water users, environmentalists and tribes.

While the work group continued to meet and advance a governance proposal and while the policy group finalized the implementation plan and the ROD, a bill on CALFED governance, sponsored by then Assemblymember Mike Machado, made its way through the legislative process.

Governance Legislation

AB 1839 (Machado). In early 2000, Assemblymember Mike Machado introduced AB 1839 to establish a California Bay-Delta Commission. As introduced, the bill was purposefully vague to enable it to adapt to the discussions emerging from the work group and the policy group. The bill passed in the Assembly with no opposition and the details would be finalized in the Senate once the implementation plan and the ROD were complete.[52]

As the bill progressed, it was amended to reflect the analysis of the Governance Work Group and the implementation plan. AB 1839 was similar to the other plans proposed in 1999 and 2000 – the commission would have a strong state-federal partnership, budget approval over the CALFED program elements and would include a scientific review process. AB 1839 mirrored the work group plan in that it proposed a separate ecosystem restoration entity. AB 1839, as introduced, gave the ecosystem entity the power of eminent domain, although this was later amended out of the bill.

Also as introduced, the bill proposed a nine-member board, with five public members and two state and two federal agency representatives. By mid-August, the membership had grown to 20 – eight public members, four federal, four state and four non-voting legislative members. The bill gave the federal officials the ability to vote, but acknowledged that it would require congressional approval for this to happen. As introduced, the executive director would be appointed by the commission, but as amended, the Governor, in consultation with the Secretary of the Interior selected the executive director. Initially the commission was an independent entity, but as amended in AB 1839, the commission was placed within the Resources Agency.[53]

By most accounts the bill had enough support to become law, however, timing proved insurmountable. The Legislature did not want to pass the proposed measure until after the ROD was signed. The final hearing before the Senate Committee on Agriculture and Water Resources was held on August 22, 2000. The bill analysis indicates the author was continuing to work with stakeholders and there was still disagreement regarding the makeup of the commission and which programs should be under the jurisdiction of the commission. According to the analysis, the environmental community was concerned with the makeup of the commission, its location in the Resources Agency, the appropriateness of gubernatorial appointments for staff and other issues. The urban and agricultural water users believed a separate ecosystem authority was unworkable, and that the bill lacked adequate guarantees regarding water project implementation and lacked clarity on program authority.[54]

By the time the ROD was signed on August 28, 2000, a bare two weeks were left in the legislative session. Two days later, the Machado legislation emerged as SB 2042 (Johnston), a bill originally addressing toxic spills. In this latest version, the board included 11 voting members – the secretaries of the California Resources Agency and California EPA and the U.S. Secretary of the Interior and administrator of the U.S. EPA, a member representing local government or a local agency, a tribal representative, and five public members with expertise in water quality issues, water supply issues, ecosystem restoration, water management and a member of the Delta Protection Commission.[55]

SB 2042 was passed by the Assembly Water, Parks and Wildlife and Appropriations committees on August 31, 2002. The bill failed to pass by one vote in the full Assembly. Had either of two Assemblymembers who had voted for the measure in committee hearings been present for the floor vote, by most accounts the measure would have passed.[56]

Most CALFED participants generally agreed there was a need for a new governance entity for CALFED and shortly after the end of the 1999-00 legislative session, the Legislature convened a hearing to once again explore CALFED governance.

Legislative Success

SB 1653 (Costa). In December 2000, the Senate Agriculture and Water Resources Committee, chaired by Senator Jim Costa, and the Assembly Water, Parks and Wildlife Committee held a joint hearing on CALFED governance. In February 2002, Senator Costa introduced SB 1653, a bill to establish the California Bay-Delta Authority in the Resources Agency. With SB 1653, the membership grew to 24 – six state and six federal agency representatives, seven public members, one member from the

Bay-Delta Public Advisory Committee and four non-voting legislative members. The bill gave the federal representatives voting membership provided that Congress authorized them to fully participate. The bill stated that the federal agency representatives could participate as non-voting members until federal legislation was enacted.

Once again the bill mirrored many of the important elements of prior efforts, but diverged in certain critical areas. Perhaps most notably, the bill gave the California Bay-Delta Authority the role of reviewing programs and budget proposals, but unlike all the prior proposals, the authority no longer had control of the CALFED program budgets. Additionally, the bill language stripped any meaningful authority from the Bay-Delta Authority:

> ***"A weak institution without real power to carry out its job would be unacceptable."***
>
> Cynthia Koehler, letter on behalf of the Environmental Water Caucus. March 3, 1998.

> *Nothing in this division shall be construed to restrict or override constitutional, statutory, regulatory, or adjudicatory authority or public trust responsibilities of …any local, state, or federal agency, or local water project operations under applicable law and contracts.*[57]

Critics of SB 1653 claim that essential elements were dropped from the earlier proposals of the Governance Work Group and the implementation plan in an attempt to appease various stakeholders and the agencies.[58]

The Costa bill also did not include a separate ecosystem entity. While some environmentalists felt strongly about the ecosystem entity, others acquiesced on this issue.[59] Another change from prior proposals was that the seven public members would represent geographic regions instead of stakeholder interests. As a result, the bill was opposed by tribal representatives and some local government entities who had been identified as participants in prior proposals and in the Machado bill.

As introduced, SB 1653 required that the authority appoint an executive director and lead scientist. However, the bill was later amended to require the Governor, in consultation with the secretary of the Interior, to appoint an executive director and the authority, with the advice of the executive director, to appoint a lead scientist.

Finally, the CBDA would sunset if federal legislation was not enacted to reauthorize participation of the federal agency representatives in the CALFED process. It was hoped that reauthorization would bring renewed federal interest and funding. The Legislature passed and the Governor signed SB 1653 into law on September 23, 2002 creating the California Bay-Delta Authority, the central feature in the current governance structure for CALFED. AB 2683 (Canciamilla) became law that same month and made additional refinements to the CBDA.[60]

Federal Partnership

Throughout the decade of discussion on CALFED governance, all parties acknowledged that full participation by the federal agencies would require congressional authorization. But the participants could never adequately resolve how the state and federal agencies could co-govern CALFED without violating state and federal sovereignty.

However, the Costa legislation would sunset without federal legislation reauthorizing participation. In 2004, Congress passed legislation introduced by Senator Diane Feinstein authorizing federal participation in CALFED. The law, however, did not grant voting power to the federal agencies participating in the Bay-Delta Authority. At the time the federal law was being considered by national policy-makers, it was clear that the Bush administration would not support the legislation if it gave the federal agencies voting rights. While the federal legislation did not grant voting authority, it did authorize CALFED, allowing the program and the Bay-Delta Authority to continue.[61]

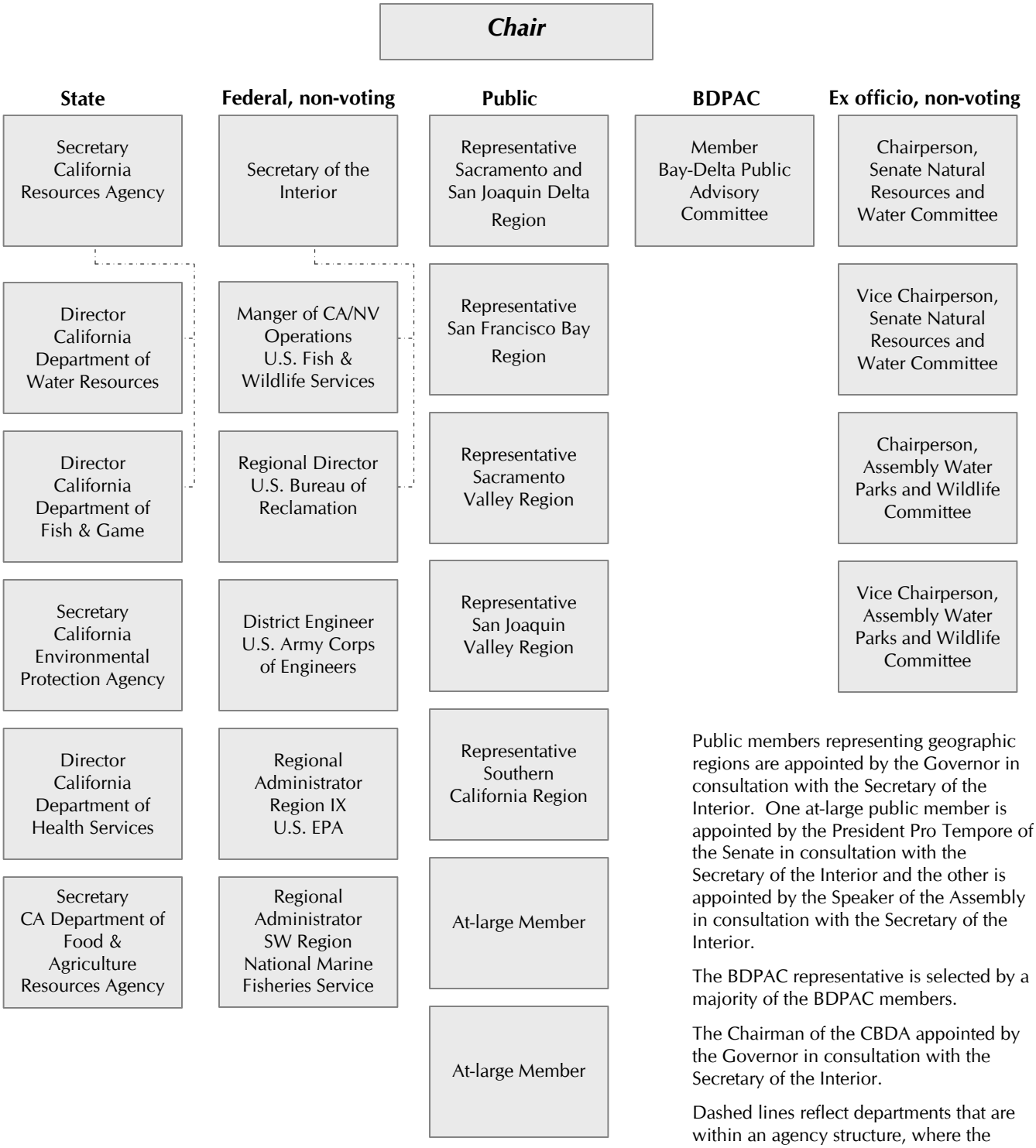
Current Structure Defined

The California Bay-Delta Act (SB 1653) took effect on January 1, 2003 and established the California Bay-Delta Authority (CBDA) as the central governance structure for CALFED. The CBDA board includes 24 members as detailed in the organizational chart on the following page. CDBA held its first official meeting on August 14, 2003 and met every other month throughout 2004. It had held eight meetings in 2005 as of November 2005.

California Bay-Delta Authority – Powers and Duties. CBDA tracks the progress of CALFED projects and activities, assesses overall achievement of the goals and objectives. CBDA also coordinates with federal agencies to request federal funding to support CALFED. CBDA is authorized to modify CALFED timelines and activities when necessary to meet goals and objectives. Modification must be coordinated with implementing agencies and other affected agencies. CBDA is required to notify the Legislature regarding any modifications.

One of CBDA's oversight functions is to review program plans and budgets of CALFED implementing agencies and recommend changes, if necessary, to make the programs consistent with CALFED goals, objectives and priorities. CBDA also reviews multi-year plans and budgets and can submit findings to the appropriate policy and fiscal committees of the Legislature, as well as the implementing agency if the multi-year plan and budget does not meet CALFED criteria.[62]

California Bay-Delta Authority Board Membership



Public members representing geographic regions are appointed by the Governor in consultation with the Secretary of the Interior. One at-large public member is appointed by the President Pro Tempore of the Senate in consultation with the Secretary of the Interior and the other is appointed by the Speaker of the Assembly in consultation with the Secretary of the Interior.

The BDPAC representative is selected by a majority of the BDPAC members.

The Chairman of the CBDA appointed by the Governor in consultation with the Secretary of the Interior.

Dashed lines reflect departments that are within an agency structure, where the agency also serves on the board.

CBDA Staff. The Governor, in consultation with the Secretary of the Interior appoints the director of the CBDA. The director serves at the pleasure of CBDA's governing board. Staff are hired by the director, with the exception of the lead scientist who is appointed by the governing board in consultation with the director.

CBDA Science Program. The lead scientist, in cooperation with the implementing agencies, is responsible for the science element of the CALFED program. The ROD and the IMOU require that scientific-based decision-making be integrated into the implementation of CALFED through a process called "adaptive management." Adaptive management requires the lead scientist to constantly monitor programs and ensure the best science-based decision-making is integrated into the implementation of all CALFED program elements. Adaptive management is discussed in more detail in Finding 3.

The science program has an Independent Science Board composed of scientific leaders. The Independent Science Board advises the CBDA on science issues and provides independent reviews of the quality and effectiveness of the science program.

Bay-Delta Public Advisory Committee. In July 2001, the U.S. Bureau of Reclamation chartered the Bay-Delta Public Advisory Committee (BDPAC) subject to the provisions of the Federal Advisory Committee Act (FACA). BDPAC replaced the Bay Delta Advisory Committee which had advised the policy group and the implementing agencies through Phase I and the beginning of Phase II. BDPAC includes some 30 members representing numerous stakeholders.

BDPAC Subcommittees

- Delta Levee Habitat
- Drinking Water Quality
- Ecosystem
- Environmental Justice
- Steering Committee
- Water Use Efficiency
- Watershed
- Water Supply
- Working Landscapes

As originally chartered, the purpose of BDPAC was to advise the Governor, the Secretary of the Interior and the CBDA based on semi-annual public meetings held by the committee. In July 2005 the charter was revised to state that the purpose of BDPAC is to advise the federal government. BDPAC first met on December 5, 2001. BDPAC was charged with evaluating CALFED operations. It is funded by the Bureau of Reclamation and the California Resources Agency. BDPAC members are appointed by the Secretary of the Interior in consultation with the Governor to "reflect the geographic diversity of interests affected by the health of the Bay-Delta."[63] BDPAC has nine subcommittees as listed in the box.

How is the Delta Doing?

Numerous organizations collect data about the water quality, ecology and landscape of the Delta. Various agencies are responsible for monitoring specific components of the Delta. And several local or not-for-profit entities have compiled data. But there is no centralized depository for the information collected. While a myriad of indicators exist that could be used to detect trends, there is disagreement on which indicators should be used to measure the health of the Delta. And incorporating data into the management of CALFED programs has only occurred intermittently. While officials recognize the importance of measuring performance, monitoring trends and managing adaptively, deploying these tools has been difficult for multiple reasons.

The Bay-Delta is a complex system. Scientists rarely have been able to link specific causes to specific changes in the Delta because of the complexity and interconnectedness of numerous factors. And in natural systems, trends surface over long periods of time. For example, declines in Delta smelt populations could be attributed to non-native species, contaminants and water project operations, and scientists maintain that the cause is difficult to determine.[64]

> ***"It may take many years or even decades before we will be able to discern trends of environmental change in the… highly complex and dynamic (Delta ecosystem)."***
>
> Department of Fish and Game

Consensus on indicators is weak. Determining progress toward the four objectives requires performance measures. But developing indicators that all stakeholders agree to is difficult. For example, there is disagreement about how the stability of Delta levees should be evaluated, and the standards that should be used.[65]

The monitoring infrastructure is inadequate. The Interagency Ecological Program for the Sacramento-San Joaquin Estuary is a collaborative effort of nine state and federal agencies that is tasked with collecting and maintaining long-term data, including fish abundance. But similar programs do not exist for other resources.[66]

Communicating data is difficult. There is an abundance of data collected about the Delta. But there is no mechanism for analyzing that information and reporting its significance to managers, policy-makers and the public. The IEP has monitored the estuary since 1970. Quarterly IEP newsletters communicate findings to other scientists and are shared up the chain of command.[67] But translating data into action has been difficult. CALFED has not effectively communicated information to policy-makers and the public.

In spite of these challenges, representatives from similar restoration efforts emphasize the importance of outcome-based indicators, comprehensive monitoring and adaptive management.

Chesapeake Bay. Michael F. Burke, the associate director of the Chesapeake Bay Program Office, said that his program pioneered the use of clear ecological measures for evaluating management performance and the health of the bay. The Chesapeake program is now reducing the number of metrics from the current 101, to a smaller set that will be more meaningful for stakeholders.[68]

Everglades. The South Florida Restoration Task Force is developing 12 to 16 indicators that will evaluate the stability between natural and built resources in the Everglades. Executive Director Greg May reported that the Task Force coordinates the science functions of the various agencies involved in the partnership, and identifies gaps in agency monitoring.[69]

Lake Tahoe. The Tahoe Regional Planning Agency uses 35 indicators in nine thresholds to monitor the changes in the natural and human environment around Lake Tahoe, said Carl Hasty, deputy executive director. Despite TRPA's robust monitoring, Mr. Hasty warned against becoming paralyzed by a lack of scientific data. He suggested basing decisions on the best information available, even if data are incomplete.[70]

Delta Check-Up

In preparing this report, the Commission requested assessments of water supply reliability, water quality, levee stability, ecosystem and development trends in the Delta from state implementing agencies. The following is a summary of the information received:

Water supply reliability.

The Department of Water Resources responded that water supply reliability is dependent on weather, facility outages, regulations and the health of Delta-dependent fish. Water supply reliability, however, has improved since the Bay-Delta Accord was signed in 1994. The Accord established a coordinated approach to meeting Endangered Species Act requirements for winter-run salmon and Delta smelt without further decreasing water supply, and it revised water quality standards. Even though the new standards meant less water could be pumped, the reliability of deliveries increased and remained stable until recently. DWR reports that project operations are uncertain this year because of a lack of funding for the Environmental Water Account and the Ecosystem Restoration Program, and the decline in Delta fish populations.[71]

> ***"We need to be able to adaptively respond to changes in our scientific understanding."***
>
> Department of Water Resources

Water quality.

The Central Valley Regional Water Quality Control Board responded that a comprehensive monitoring program for the Delta has not been implemented because limited funds have been allocated toward addressing known problems. The board reports that discharges of selenium from the primary source of selenium in the San Joaquin River watershed have decreased 62 percent between 1996 and 2004. Concentrations of the two pesticides of highest concern in the Delta – diazinon and chlorpyrifos – have decreased significantly. But the Delta is on the Clean Water Act 303(d) list of impaired water bodies because of elevated concentrations in fish tissue of PCBs, DDT and other pesticides. And mercury is present in Delta fish at levels that pose a risk for humans and animals that eat the fish. Dissolved oxygen levels in waters near Stockton are low enough during some seasons to impair aquatic life. Nitrate concentrations, while still below USEPA drinking water standards, have steadily increased over the past 50 years. Pyrethroid pesticides have been detected at concentrations high enough to contribute to toxicity in sensitive aquatic species. And highly toxic dioxin chemicals are present in fish at levels above the Office of Health Hazard Assessment screening values. According to the regional board, levels of salinity, organic carbon and copper are about the same as when CALFED started.[72]

Development.

The Delta Protection Commission provided information showing a trend of increasing development in the Delta. Urban projects of significant interest to the DPC are proposed to develop 6,289 Delta acres into more than 15,000 housing units and other structures. DPC notes that proposed neighborhoods with names like Delta Shores, Village on the Delta, and River Island Project will inevitably stress the environment through increased public access, recreation and run off. And new development demands that infrastructure be improved to guarantee public safety.[73]

> ***"Data…clearly signify a trend of increasing encroachment of development on the Delta… (and) demonstrate that this trend will undoubtedly continue."***
>
> Delta Protection Commission

Ecosystem.

The Department of Fish and Game reported increases in numbers of Central Valley Chinook salmon (Figure 1) and conservation of land that is highly valuable for wildlife. Recent surveys of Swainson's hawks, listed as a threatened species by the State, show population increases in 2004. Numbers of greater sandhill cranes also have increased. And waterfowl populations have remained about the same over the last 16 years. However, DFG reports dramatic declines in pelagic organisms, including juvenile striped bass, Delta smelt (Figure 2), longfin smelt and threadfin shad. The limited data for Central Valley steelhead show that populations are extremely low. DFG also reports increases in three species of non-native invasive plants.[74]

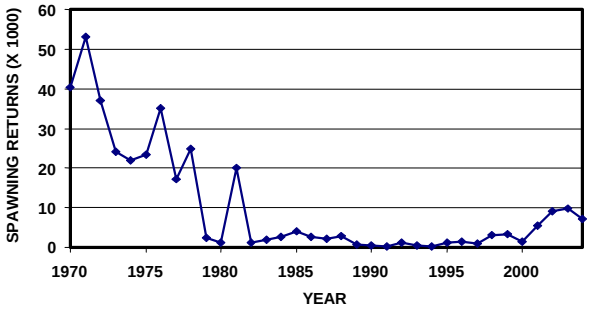


Figure 1. Spawning returns of Sacramento River winter-run Chinook salmon at Red Bluff Diversion Dam, 1970 - 2004.

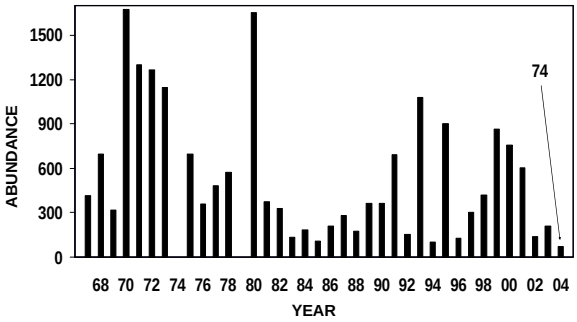


Figure 2. Annual abundance of Delta smelt based on DFG Fall Midwater Trawl Survey, 1968-2004

Levee stability.

The Reclamation Board asserts that the current methods for measuring levee reliability are not statistically valid. Those methods tabulate the frequency of levee breaches and compare the average number of breaches per five-year period. The Reclamation Board concludes that although their calculations do not provide a high level of confidence, the numbers demonstrate a trend of improvement since 1992. However, the board acknowledges that this conclusion does not account for levee foundations that compress under new loads, causing the levees to sink. In some locations consolidation has ceased, but the elevations of active Delta levees have decreased up to one and one-half inches per year in the past 10 years.[75] The Department of Fish and Game provided information on the impacts of levee maintenance on Delta habitat indicating that the Levee System Integrity Program has achieved net ecosystem benefits.[76]

> ***"…many of the Delta levees are located in an area of poor quality soil…the foundation of those levees is compressing under the new load and the compression is causing the levees to actually sink."***
>
> Reclamation Board

The information available confirms that existing efforts to monitor Delta trends are not strategic or comprehensive enough to drive policy and management decisions or to inform the public. To be most valuable to the public and policy-makers, reports should be independently validated and easily accessible.

Vision and Mission

Finding 1: Growing disagreements about CALFED's vision and mission and the role of the Bay-Delta Authority are jeopardizing a critical effort to meet California's water needs and restore the Bay-Delta estuary.

The governance structure, principally the California Bay-Delta Authority, was created to implement the vision and mission of the CALFED program. The original vision included an authoritative state-federal commission that would direct implementation and resolve management and policy issues that would undoubtedly unfold. As described earlier, that strong commission was not put in place. During the first five years of implementation, new information and developments have revealed the need to reassess some elements of the CALFED vision and mission.

Throughout its evolution, CALFED's leaders attempted to articulate clear goals and objectives that captured the guiding principles of improving water supplies and restoring the environment. Similarly, the Record of Decision and other documents attempted to define objectives, assign roles and responsibilities and specify activities that would be pursued in the vast and noble effort to simultaneously pursue multiple goals for the Bay-Delta.

But there are increasing disagreements about what CALFED should accomplish, about priorities, about how the program should be financed, and about how important issues should be resolved.

These issues reveal some of the challenges facing CALFED and the governance structure. To be effective, the governance structure must be based on what CALFED is attempting to achieve. In turn, an effective governance structure would be capable of resolving many of these challenges.

As Defined in the Record of Decision

"The mission of the CALFED Bay-Delta Program is to develop a long-term comprehensive plan that will restore ecological health and improve water management for beneficial uses of the Bay-Delta system."

CALFED developed four objectives for a solution:

- "Provide good water quality for all beneficial uses.
- "Improve and increase aquatic and terrestrial habitats and improve ecological functions in the Bay-Delta to support sustainable populations of diverse and valuable plant and animal species.
- "Reduce the mismatch between Bay-Delta water supplies and current and projected beneficial uses dependent on the Bay-Delta system.
- "Reduce the risk to land use and associated economic activities, water supply, infrastructure and the ecosystem from catastrophic breaching of Delta levees."

Record of Decision, page 9.

CALFED and the CBDA are Guided by Broad Objectives

While the Bay-Delta estuary is only a portion of the State's waterscape, the management of that system is critical to the long-term prosperity of California's entire economy and ecology. While CALFED was not intended to solve all of the State's water problems, fortifying the Bay-Delta is essential to a comprehensive and effective statewide water policy.

CALFED and the CBDA are guided by a series of formal agreements, beginning with the 1994 Accord and including the Record of Decision and the Implementation Memorandum of Understanding, that describe the primary objectives, specific activities, and even the governance structure anticipated to coordinate the program. The documents reflect the drafters' desires to put in place both the solutions that had been agreed upon, as well as a means for resolving differences in the future.

The governance elements contained in those documents reflect the state and federal nature of CALFED. They also reflect the need to coordinate multiple, sometimes disparate projects that serve common goals. And the governance elements reflected the political need to document progress – and in particular, balanced progress – so that public agencies, stakeholders and policy-makers would be confident that CALFED was worth continued investments of political capital and financial resources.

In creating the Bay-Delta Authority, the Legislature affirmed most of those governance needs. With less precision, policy-makers defined CBDA's role in resolving the uncompleted details, including the development of a finance plan, and resolving other significant policy issues.

The CBDA, however, was set up with the generally held assumption that the Record of Decision was adequate to solve the problems associated with the Bay-Delta. As a result, the primary job of CBDA was to coordinate the efforts of agencies in the implementation phase of CALFED. The agency's greatest role, therefore, was one of coordinating the administration of programs, rather than the development of policy.

Managing to Goals Requires Managing Goals

Five years into the implementation of CALFED, there is still agreement on the importance of the four broad objectives of water supply reliability, water quality, levee stability and ecosystem restoration. But progress has stalled over how the agencies should precisely pursue those objectives, particularly in a time of limited resources and changing

conditions, and whether the specific efforts underway will be adequate to meet changing circumstances. Among the specific challenges:

The ROD has not been reinforced by adaptive management.

The ROD lays forth both principles and specific activities. In turn, some view it as a binding action plan and others see it as a policy framework. Either way, implementing the ROD will require public officials, working with the public, to determine how progress can best be made. How much of the reliability issue, for example, should be resolved through efficiency versus increased storage? In other cases, the available policy choices change as more is known about the problem – such as the fragility of Delta levees – and what it would take to solve the problem as it is now defined.

Faith in the ROD also is undermined by the perception of uneven progress among the programs – concerns that the parties are no longer getting better together. Some participants are concerned that the ROD over-reaches, that it includes actions that are not necessary to resolve the greatest problems and that cannot be afforded.

And some see the Bay-Delta facing new and larger challenges that were not considered when the ROD was negotiated. Former U.S. Secretary of Interior Bruce Babbitt said CALFED's leaders must broaden their task to counter the consequences of global climate change – including more rain and less snow, quicker and less reliable runoff, and a rising sea pushing its tides against Delta levees. Those realities, he said, should change the calculus – political, environmental and economic – of options ranging from new reservoirs to a peripheral canal.

The president of the Association of California Water Agencies similarly testified: "It is becoming increasingly clear that the Record of Decision failed to anticipate changes in the Delta and its watershed that are now looming very large."[77]

If the primary task is to implement the ROD, then the governance structure must be focused on effective management, supported by effective public involvement and accountability for progress.

But drafters of the ROD did not expect that negotiation to be the last difficult task. Federal officials acknowledge that the implementation phase of a project is inherently more difficult than the planning phase.

The ROD envisioned a CALFED that was guided by an assertive adaptive management system. But that system has not been put in place. In addition, the CBDA board has not been an effective venue for identifying

policy choices that need to be made, and either making those decisions when appropriate, or developing broadly supported and science-based recommendations for elected federal and state officials to consider. As a result, many of the challenges that stakeholders affix to inadequacies in the ROD may just as likely be the result of inadequate implementation.

There is no agreement on the priorities for CALFED.

Political support for the ROD was built by adding elements that various interest groups believed could contribute to the solution. To some degree, the consensus reflected in the ROD was predicated on the belief of stakeholders that CALFED would provide substantial funds for projects that would otherwise not receive public support.[78] As CALFED has neared the difficult policy choices, and as the hopes for full funding have diminished, the value and viability of CALFED has declined.

Both tighter fiscal times and concern about growing problems in the Delta proper have prompted many to advocate for a tighter focus on the Delta. At the same time, there is still a substantial interest in solving problems that could reduce pressures on the Delta, even if that solution is hundreds of miles away.

A Muddled Vision Weakens Delta Levees…

As time goes by, and under current management practices, much of the Delta is slowly sinking and the Pacific Ocean is slowly rising. Floodwaters are expected to get higher and come with more frequency, and every day brings the region closer to a catastrophic earthquake.

In this context, the levees that precariously separate Delta water from Delta land were elevated to one of the four elements of CALFED, and the only one critical to the other three: water quality, water supply and ecosystem restoration.

Some 1,100 miles of levees border 65 islands and channel water through 700 miles of Delta waterways. These levees differ from those in other parts of the state. Unlike flood control levees, Delta levees are constantly holding water back from flooding the islands. But that is the only constant. The islands themselves are gradually eroding, sinking further below sea level, and as a result the pressure on the levees is gradually increasing. Built on unstable peat foundations, many of the levees also slump over time, and are vulnerable to collapse during earthquakes. The levees also play a unique role of shunting freshwater toward aqueducts serving farms and cities to the south.

While CALFED has made some progress toward improving levees, California does not have a sustainable and practical plan for solving land-related issues in the Delta. All of the fundamental trends continue to work against the levees, and the more that engineers know about the levees the less confident they become.

The ROD appears to provide the best answers that were available at the time. But even if all of those activities are completed, the Delta's islands will not be stabilized and the most significant values will not be protected over time. Hurricane Katrina has focused attention on the inadequacy of the current plan for sustaining the physical layout of the Delta – and the folly of relying on a water system that relies on that structure.

The four points on the following page describe how the implementation of recommendations in this report will lead the State toward sustainability in the Delta.

...but a Solid Vision Will Create a Stable Future

1. **CALFED has not identified a solution – or a process for developing a solution – for the Delta landscape.**

   While stabilizing levees is an urgent need, evolving knowledge has revealed the inability of levee stability alone to protect the Delta over time. California must have long-term vision – 50 to 100 years into the future – that reverses the unsustainable trends in land management. The long-term plan would allow officials to target immediate priorities, develop funding mechanisms and coordinate actions by local, state and federal agencies. Alternative, short-term and piece-meal efforts will squander public investments and compromise public safety.

   As discussed in Recommendation 1, CALFED must offer workable and sustainable solutions for the Delta, or a mechanism to develop them.

2. **CALFED has not established a process to adaptively manage progress in the Delta.**

   Delta levees are subject to changes in climate, water flows and wildlife, and to changes caused by erosion, flooding and seismicity. The State is constantly gaining new information on levee structure, strength and stability. But that evolving information is not fully or effectively integrated into decision-making by policy-makers and program managers. Delta policies have not been adapted to reflect an awareness of the inherent instability of the region. And urban development continues to encroach upon the Delta. Procedures need to ensure that decision-makers incorporate changes in nature, scientific findings, and lessons learned from experience into policy and management decisions.

   As outlined in Recommendation 3, CALFED must have policy and management systems that adapt to changes.

3. **CALFED does not have a reliable and adequate funding mechanism.**

   Without a comprehensive plan for the Delta, it is difficult to garner public confidence and taxpayer support. Implementing a long-term vision for the Delta will be expensive. But the stakes are high. Large-scale flooding in the Delta will contaminate the water, shutting off the water supply to much of the State. And science shows that the occurrence of such floods is not a matter of "if," but "when." Leaders must build public awareness of the gravity of the situation in the Delta. They must create a credible finance plan that provides a sustainable future for the Delta. And they need to make tough decisions about which policies and projects are essential, and which are extraneous.

   As described in Recommendation 1, leaders must have the courage to establish state-wide funding for state-wide problems.

4. **Instead of integrating efforts, CALFED has created additional layers of bureaucracy.**

   Responsibility for building, maintaining and operating levees is spread across all levels of government: local, state and federal. CALFED was conceived as a mechanism for coordinating related efforts toward common goals, but in the case of Delta levees the leadership and management have not effectively integrated existing efforts or developed a concerted effort to achieve even short-term goals. The U.S. Army Corps of Engineers' formula used to assess the benefits of levee improvements only calculate the costs of property damage caused by flooding, and do not consider the devastating effects of levee failure on water supplies. The interdependence between program objectives – acknowledged in the ROD – has not been translated into policies that effectively link the priorities of various agencies.

   As discussed in Recommendation 3, CALFED needs to ensure that roles and responsibilities are clear, and that all endeavors are coordinated toward the comprehensive solution.

Over the long term, these tensions can be eased by framing efforts to fortify the Bay-Delta in the context of a comprehensive water policy. Through that approach, the State will be able to meet all of its water needs in a sustainable manner. And through that approach, the burden on CALFED may be lowered and CALFED would be able to set priorities for the Delta without ignoring real problems that need to be resolved.

The Department of Water Resources' new State Water Plan begins this evolution by highlighting the ability of integrated regional water plans to find alternative mechanisms for reducing water demands and other burdens on the Delta. The statewide plan should allow CALFED to refine its strategy for achieving goals in the Bay-Delta. For example, to the extent that regions can meet demands through efficiency and recycling, the demands on the Delta are eased. Resolving those issues statewide, will allow CALFED to focus on problems unique to the Bay-Delta.

To navigate these issues, the CALFED governance structure will need to better integrate the related public efforts – whether they are part of the ROD or not – so that the full water policy can be articulated.

There is no agreement on how to pay for CALFED.

Some of the vagueness over the financial issue stems from the broad language of the ROD. That document, which represents the general agreement at the time, states: "A fundamental philosophy of the CALFED Program is that costs should, to the extent possible, be paid by the beneficiaries of the program actions."[79] That statement did not identify which costs or distinguish direct beneficiaries from indirect beneficiaries. It also masked over the concern about whether that principle applied to projects designed to remedy environmental damage from past actions or those associated with additional benefits. The financing of public projects is almost always a substantial and controversial policy decision. But it is not well defined in the CALFED documents or in the statute creating and charging the CBDA with general governance functions. As played out in the CBDA's venues, the major policy choices have been well defined, but unresolved. The ensuing controversy grew far beyond the CBDA's proposed policy to whether the CBDA had the authority to make such a proposal.

To some, the CBDA was not entrepreneurial enough; to others it was too entrepreneurial. While some legislative members said the CBDA failed by presenting a plan that was beyond the willingness of beneficiaries or the federal government to pay, CBDA members said they were only putting forth a plan to finance what had been agreed to by state and federal officials. If the governance structure is expected to resolve major policy issues, it must be more carefully crafted to do so.

The CBDA Finance Plan: No Funding, No Future

Long-term financing is integral to the success of any program or restoration effort. But for CALFED – a 30-year water management plan operated by multiple state, federal and local agencies – it is also inherently controversial.

Since the ROD was signed in 2000, there has been an expectation among CALFED participants that the state and federal governments and local water users would share program costs equally. Both the ROD and the July 2000 EIR/EIS state that water user fees shall be developed based on benefits.

Program costs have not been shared equally and there is no fee on beneficiaries. Since 2003, the State has provided 48 percent of CALFED's total expenditures, mostly in the form of revenue from general revenue bonds, while the federal government has contributed just 6 percent. Water users and local agencies have provided the additional 46 percent of program expenditures.

Discussions on long-term financing did not begin until after the creation of the California Bay-Delta Authority in 2002, when budget surpluses rolled into deficits and state bond funds thinned. In October 2003, the CBDA began developing a long-term finance strategy that it hoped would be incorporated into the Governor's State of the State address and the 2005-06 budget.

The plan failed to do either. Instead, lawmakers were dismayed by the seemingly unreasonable and unrealistic financing options presented by the CBDA and slashed funding to the program by nearly half for the 2005-06 fiscal year. Similarly, the Governor ordered a review of CALFED expenditures and governance.

The failure of the CBDA finance plan illustrates inherent challenges confronting CALFED: the ambiguity of its mission, the lack of executive and legislative leadership and waning stakeholder support, all of which are addressed in this report.

The CBDA found little guidance in statute regarding long-term financing. Neither the ROD nor the California Bay-Delta Authority Act specify how to identify beneficiaries or levy fees on them. Also, program documents do not clarify whether it is the responsibility of CALFED officials or lawmakers to develop a long-term finance plan.

CBDA also encountered a void of political leadership. Elected officials were not interested in more bonding and the federal government had long since distanced itself from CALFED. Furthermore, CALFED stakeholders doubted the CBDA's authority to identify and charge beneficiaries.

The CBDA saw the finance plan as an opportunity to explain to California's leaders how to pay for the implementation of the ROD. After reviewing program needs and financing options, the CBDA determined that it would cost $8 billon to finance CALFED over the next 10 years. Keeping with the briefly outlined three-tiered financing strategy in the ROD, CBDA suggested that the state's share would amount to roughly $2.6 billion, or 30 percent.

It also envisioned that the federal government would contribute nearly $17 million and State Water Project and Central Valley Project water users would provide another $7 million. The finance plan called for unidentified program beneficiaries to foot the remaining $3.2 billion.

The Legislature derailed the finance plan and criticized the CBDA for its failure to make the first of what is likely to be many tough choices for CALFED. To expect the state and federal government to continue providing the bulk of CALFED financing during tight fiscal times is "folly" to at least one state legislator.

The failure of the CBDA finance plan also revealed the limits of the CALFED consensus. As Environmental Defense's Regional Director Tom Graff testified to Congress in 2003, "For any veteran observer of the history of both the Central Valley Project and the State Water Project, it was of course obvious even in 2000 that the users had no intention of contributing significant funds to the environmental restoration objectives of the ROD."

Sources: CALFED Bay-Delta Program. July 2000 EIR/EIS. Chapter 5: "Financing." On File. Also, DOF Draft Background. Funding. Page 6. Also, Kate Williams, CBDA Assistant Director of Policy and Finance. September 2005. Interview with Commission staff. Also, Bill Forsyth, Assistant to the Director, CBDA. July 26, 2005. " CALFED Bay-Delta Cross-Cut Budget – Supplemental Report Display, July 19, 2005. Also, CALFED Bay-Delta Program Finance Plan, CBDA, January 2005, page 9. Also, Letter to CBDA Chair Gary Hunt from Senator Michael Machado. December 7, 2004. On file. Also, Tom Graff. Regional Director, Environmental Defense. Testimony before the Subcommittee on Water and Power of the Senate Energy and Natural Resources Committee. October 30, 2003. Washington, D.C. On file.

The function of shared governance and the role of the CBDA are unclear.

Some stakeholders believe the CBDA should provide a coordinating role that identifies opportunities to integrate efforts to achieve shared goals. For others, CBDA should set goals, establish priorities, resolve conflicts and monitor performance. This fundamental tension, between CBDA as a facilitating entity or a decision-making entity, hampers progress.

These disagreements over what CBDA should be also fuel concerns regarding its performance. Those who see CBDA as having the potential to set priorities and actively resolve conflicts are disappointed by its focus on "coordination" and an apparent interest in avoiding conflict. Others are concerned by a perceived expansion of the CBDA's reach.

Without a clear operating model, the CBDA is burdened with trying to live up to widely different expectations. While many participants believe the CBDA could be successful as an agency that governs through persuasion rather than regulation, the new agency has struggled to create gravitas without the benefit of a strong political sponsorship.

From the perspective of the agencies – and the federal agencies, in particular – this issue is even more narrowly defined. To them, the CBDA should not involve itself with decisions that are within the authority of the different agencies.

Resolving Tensions and Evolving the Governance Structure

Many of these conflicts could have been resolved by a governance structure that effectively exerted leadership to continuously refine goals and resolve conflicts as they surfaced. The ROD, like any other comprehensive plan, needs to be continuously assessed and revised, incorporating new information and responding to new challenges. As California attempts to implement the broad goals of the ROD, leaders – in government and among the stakeholders – need to rely on analyses and negotiations to refine the best course of action.

In the long run, no governance structure will succeed if policy-makers cannot be clear and specific regarding the goals of the program. The organizational structure, the assignment of roles and responsibilities, the application of regulatory authority and allocation of resources all must be carefully guided by what CALFED is attempting to accomplish.

As described in Evolution of Governance, the framers of CALFED discerned all of the various functions that "the governance structure" would need to perform, and envisioned those functions being assigned to a strong state-federal commission. That concept then evolved through

the legislative process to be a board with limited federal participation and even less authority to actually govern.

As detailed in this report, it was a fundamental flaw to place all of the governance responsibilities – project management, public advisory and legislative oversight – into a single, board-based entity. In reality, that error was compounded by creating the illusion that the CBDA is that consolidated governance entity, when it is not.

The CBDA represents a failed attempt to merge management coordination and direction, with public involvement and legislative or external oversight. All of these functions are necessary, but they cannot be effectively accomplished in a single organization.

In separately examining the structure related to each of these functions, policy-makers are then confronted with the long-standing issue about whether to rely on a board or commission.

Since the Progressive Era, California has been biased toward board-based government. In reviewing the boards and commissions in the Resources Agency in 1965, the Little Hoover Commission observed the benefits and the liabilities of boards, as reprinted in the box on the following page. The Commission then observed: "A natural sequel to the enunciation of the above concepts is the general observation, and recommendation, that plural bodies normally not be used to administer, manage, direct or operate a program. The case for a single, responsible executive in this capacity is well known and documented. It need not be repeated here."[80]

Over the last year, the Commission reviewed this issue again, both conceptually and in analyzing the Governor's plan to eliminate 88 boards.[81] The analysis has not changed over time. In governing CALFED, plural bodies could play an important role in providing expert oversight and public advice to both executive branch managers and legislators. But it will be essential for policy-makers to restore the management structure reporting through the Governor.

The Elements of Governance Reform

Three primary governance functions are essential to CALFED's success:

- ***Executive leadership.*** The State needs to establish clear and responsible leadership for managing internal functions, forging key agreements with federal partners, building support among legislative members, and meaningfully involving the public in managing this essential public resource.

Benefits and Liabilities of Boards and Commissions

1. ***Broader Public Participation in Government.*** Boards and commissions bring into government citizens who would not otherwise be actively involved but who have a contribution to make. If the members are carefully chosen, this contribution can be of immeasurable importance.

2. ***Open Manner in Which Affairs are Conducted.*** One appealing feature of the operations of a board or commission is the "open forum" manner of proceedings. Public meetings for the airing of competing or differing needs and viewpoints are in the best democratic tradition. The opportunity to be heard is appreciated – and important in our political system.

3. ***Consensus of Views.*** In the consideration of public issues it is desirable to bring together, in a rather formal way, a group of persons to deliberate and seek a consensus, particularly if they represent a variety of interests and points of view which need or ought to be recognized.

4. ***Buffer Against Undue Pressures.*** A board or commission can protect or give support to an executive against whom pressures may be exerted – from a variety of sources – for undue recognition of special interests. The ready example is in the allocation of funds among competing projects.

5. ***Protection Against Arbitrary Action.*** A board or commission may lessen the possibility of "arbitrary" action by an executive official, through consultation before the action is taken or by hearing the appeals of affected or injured parties.

The case for the exercise of restraint or caution in the use of boards and commissions would include the following:

1. ***Diffusion of Responsibility.*** The more people involved in a decision-making process, the more difficult it becomes to fix responsibility for results. Executives at times "use" a board as a shield to hide behind in avoiding responsibility.

2. ***Slowness to Act.*** A plural body by its very composition cannot decide or act as expeditiously as a single executive.

3. ***Division of Authority.*** Where authority is shared between one or more bodies and executives, a consistent and coordinated line of action is difficult. As in Item 1 above, deliberate advantage is sometimes taken of this division by officials who are reluctant to take action.

4. ***Undue Special Interest Representation.*** A board on which is represented special interests may have a divisive effect with such interests opposing each other or the executive officials who are concerned with the broader public interest. If safeguards are not provided, the beneficiary interests may be recognized to the exclusion of the general public interest.

5. ***Expense of Board Operations.*** Boards can be expensive, not so much because of compensation or expenses of the members, as because of the staff time required to prepare for meetings and respond to requests for information. Where boards have their own staff, duplications with the related executive agency are common.

6. ***Isolation From Normal Processes of Government.*** Boards – particularly those concerned with one industry or occupational area – tend to become isolated from the normal governmental processes of legislative policy control, executive leadership, and administrative and fiscal audit.

Source: Little Hoover Commission. April 1965. *The Use of Boards and Commission in the Resources Agency.*

- ***Performance management.*** The State needs to develop more effective mechanisms for coordinating and integrating the related efforts of government agencies that each play an essential – and must play an orchestrated – role in restoring the Bay-Delta and all of its attributes. This management system must incorporate credible science and be dedicated to making better management decisions based on evidence.
- ***Public involvement.*** Both executive and legislative leaders – and the public at large – benefit from meaningful ways for all parties to understand and influence public decisions. Public involvement is essential to achieving more sustainable, more efficient and more equitable decisions – increasing benefits and reducing conflicts.

In all three areas, lawmakers also could improve their governance of CALFED by developing better mechanisms to publicly assess progress and to vet and mature policy choices that will require legislative support.

Those elements are described in the following chapters, along with the Commission's recommendations for improvement. To be successful, however, a reformed governance structure must be predicated on a clear, compelling and long-term solution to the problems in the Bay-Delta.

Planning for the Future

The California Water Plan has been updated eight times since it was first published by DWR in 1957. The value of the state water plan as an action document has been limited, primarily because water supply is a local responsibility. Historically, the plan merely attempted to quantify gaps between water needs and water supplies.

The California Water Plan Update 2005, or Bulletin 160-05, is more strategic than previous versions. Update 2005 establishes two initiatives for ensuring the State has the water it needs for the future:

Integrated Regional Water Management. The first initiative promotes regional partnerships and water management plans. It encourages regions to use multiple strategies – including conservation, recycling, enhanced storage and new technologies – to meet water needs, protect the environment and insulate communities from the impacts of droughts.

Statewide Water Management Systems. The plan also underscores the importance of maintaining and improving statewide water management systems. In addition to ensuring that state facilities and flood management strategies are dependable, this initiative emphasizes the necessity of implementing CALFED and sustaining the Delta.

> ***"State government must provide leadership for the CALFED Bay-Delta Program."***
>
> Water Plan Highlights. Page 17.

A public review draft of the most recent version of the California Water Plan is available at http://www.waterplan.water.ca.gov/. The final draft is slated to be approved in December 2005.

Source: California Department of Water Resources. April 2005. California Water Plan Update 2005 Highlights, Public Review Draft. Paul Dabbs, Supervising Engineer, Statewide Planning Branch, Division of Planning and Local Assistance, Department of Water Resources. November 9, 2005. Personal communication.

Recommendation 1: State and federal leaders need to refine the strategy for developing and implementing long-term and sustainable solutions to the Bay-Delta. That strategy should be integrated into a comprehensive water policy for California that encourages the best use of a scarce and essential resource. Specifically:

- ***A comprehensive state water strategy.*** Sustained progress in the Delta will require a comprehensive strategy that provides regions and local water suppliers with a clear sense of how California should efficiently and in a sustainable way satisfy future water demands.
  - ✓ The administration should articulate how the strategy outlined in the 2005 California Water Plan will guide CALFED's leadership.
- ***Specific goals for a sustainable Bay-Delta.*** In the context of the state plan, and using the principals of the ROD as a starting point, the Governor and the Secretary of the Interior, should refine immediate and long-term goals for restoring the estuary and ensuring that water needs will be met.
  - ✓ State and federal officials – working with the leadership of the involved agencies and the stakeholders – should identify the most important areas of disagreement and tailor a process – using analysis and negotiations – for resolving those disputes.
  - ✓ While this work can begin immediately, a primary function of the executive leadership described in Finding 2 will be building and maintaining consensus on what CALFED must accomplish and the best way to achieve those goals.

Legislative Role: The Legislature needs to provide a mandate for change.

The Legislature was not actively involved in the development of CALFED. State and federal administrations, working with stakeholders, negotiated the elements of the program and the ROD. Some legislators were informed and involved. But the plan itself was not endorsed by the Legislature. Drafters of the legislation creating the California Bay-Delta Authority said one of the purposes of the bill was to legitimize a program that was not in statute.

Analysts who have studied large-scale restoration efforts report that a clear legislative mandate is important for public officials to push ahead on changes that often impose new costs onto stakeholders or requires a change in business practices.

The CBDA legislation can hardly be interpreted as a firm mandate to challenge the status quo, and incorporating the broad goals of the ROD did not provide specific direction. Negotiators of that document necessarily left unresolved many tough political choices – how to pay for progress, whether fish or farmers are prioritized in water allocations, how much of future water needs should be met through efficiency versus expanded storage and supply, and whether the State can ensure adequate flood protection for communities around the Delta.

To make progress, tough choices will need to be made. Conceptually, it is the Legislature's job to set policy. If it delegates that authority to the Governor, it should provide whatever direction it can and then amend if necessary and explicitly endorse that policy once it is completed.

Whatever choices are made, they will cost money, require changes in behavior and threaten some if not all of the stakeholders involved. But only clear goals can allow the program to get past the conflicts that have thwarted progress.

Once a clear mandate for CALFED is in place, policy-makers must ensure that the administration has the authority and resources to succeed. Only then can policy-makers and the public hold the Governor and his administration accountable for progress. Further, once clear goals are in place, the Legislature must signal to stakeholders that CALFED is the forum for resolving Delta issues so as to avoid the venue shopping that can undermine progress.

Recommendation: Policy-makers must adopt clear and specific goals for the CALFED program and fortify those goals with budget and legislative authority.

- ***Set clear, specific goals for CALFED.*** The Legislature must put in place goals that communicate to the implementing agencies and the stakeholders the State's priorities and preferred strategies for restoring the estuary and meeting water needs.

- ***Ensure the implementing agencies have sufficient authority and resources to succeed.*** The Legislature must embed the CALFED goals in the authorizing statutes of the implementing agencies, empower those agencies to achieve their missions, and provide sufficient staff and funding to succeed.

Leadership

Finding 2: The leadership of CALFED is diffused and detached from the authority of the Governor, and as a result cannot govern the program or be held accountable for outcomes.

The CALFED program is both a monument to what leadership can accomplish, and evidence of what happens in its absence. Little is agreed upon in the area of water policy. But there is bipartisan and multiparty agreement that the leadership of "giant personalities," such as former Governor Pete Wilson and former Interior Secretary Bruce Babbitt, is responsible for the accord among government agencies and key stakeholders that resulted in CALFED. This leadership also ran deep and included two secretaries of the Resources Agency, Douglas Wheeler during the Wilson era and Mary Nichols during the Davis era. Betsy Rieke, the former Assistant Secretary of Interior and Robert Perciasepe, then-Assistant Administrator at the U.S. Environmental Protection Agency, are widely described as having been steeled in their commitment and credited for day-to-day progress during CALFED's planning phase. Other stars crowded this sky, evidenced by the signatories and supporters of the Record of Decision in the summer of 2000.

Illuminated now by five years of hindsight, it is clear that leadership is as necessary to govern CALFED as it was to create it, and that many of the current concerns about the program trace from inconsistent or inadequate leadership.

One lesson from the last few years is that there is no substitute for leadership – certainly not structure or process. A good governance structure will focus the authority and responsibility on leadership positions. A good leader will deploy procedures and resources to draw the best from people and their organizations. Poor structures can diffuse authority and separate leadership positions from elected officials who have the political capital necessary to overcome hurdles and are the ones who are ultimately accountable to the public.

Needed Leadership Abilities

Diplomatic skills
- Work across parties.
- Work with congressional and legislative leaders.
- Work with federal officials, locally and in Washington.
- Work with local leaders and tribal leaders.

Management skills
- Organize and manage senior leadership team.
- Create integrated approach among agencies with histories of working in silos.

Negotiating skills
- Work through major policy disputes.
- Resolve financing issues.

System knowledge
- An interest and knowledge in ecological, hydrologic, social, economic and engineering aspects of the Bay-Delta.

Few public programs succeed without leadership. But by its nature, CALFED demands the full measure:

CALFED is a state-federal partnership. The organizational foundation of CALFED is as a multi-governmental partnership, which creates substantial leadership challenges. The partnership requires maintaining the focus and meaningful involvement of two executive administrations and two legislative branches. It is difficult enough keeping California policy-makers focused on water issues. Even with the importance of the Bay-Delta estuary, it is exponentially more difficult to keep an elevated interest among national leaders. As described later in this report, the roles of legislative and executive leaders are different, but the primary responsibility for keeping the partnership solid lies with the executive.

CALFED involves agencies with a history of animosity. A founding purpose of the program was to resolve differences and encourage cooperation among agencies that have conflicting missions and different cultures and values. These differences are historic and are not easily changed. Success cannot be predicated on picking a winner among the feuding entities, because each represents an important public value. Success requires creativity and persistency and diplomacy.

CALFED involves stakeholders who are adversaries. While the focus of CALFED is maintaining intergovernmental peace, the different government agencies have customers, clients and compatriots in the public realm. Environmentalists, agricultural and urban water agencies for years have wrestled for control over how water systems will be managed and how the costs and benefits will be allocated. For CALFED to succeed, a high degree of diplomacy is required to work through disagreements among stakeholders and find compromises that can prevent litigation and break through policy stalemates.

The ROD did not resolve all of the difficult policy issues. The Record of Decision charts a precise course of action. But it also put off substantial policy choices that still need to be made. In some instances, additional analysis was needed before informed decisions could be made. In other cases, the framers were unable to reach agreement on key issues, and left those disputes to be resolved in a future that has now arrived. Identifying and exploring those key issues, resolving conflicts and bringing resolution requires superior management skills, the blessing of chief executives, and the confidence of major stakeholders.

CALFED must have superior leadership over time. Much of the leadership structure reflects the concern that CALFED's complexity and longevity requires leadership to be "institutionalized." By this rationale, the leadership vested with various entities would continue after the incumbents moved on. In that respect, the structure was an attempt to provide continuity even as executive administrations changed or when executive leaders turned their attention to other issues.

The Current Leadership is Defined by Structure

The current governance models reflect discussions that CALFED participants had for years, as well as some substantial compromises that were made during the legislative process.

The Record of Decision and the EIR/EIS both call for a new "entity." The entity would be a commission with federal and state membership, charged with many of the classic management functions: coordination and direction, conflict resolution among government agencies, monitoring and oversight of progress.

With the creation of the Bay-Delta Authority, state policy-makers created a new entity apart from the long-standing agency structure that was created to manage related public programs. They also created the CBDA board with state and federal officials – and public, stakeholder and legislative representation, as well. And policy-makers assigned to the entity many of the classic management functions. But they withheld management authority. And they made it clear that CBDA did not have any control over the implementing agencies or the programs they managed. The implementing agencies were directed to align their efforts to CALFED, but only to the extent it was "feasible."[82] Federal agencies were limited further, only authorized by Congress to participate in the CBDA as non-voting members.

Role and Importance of Leadership

- **Lester Snow, Director, California Department of Water Resources:** "You can't substitute organization for leadership. You need a structure that supports leadership. But you can't always have the leaders in the room all the time."
- **Susan Kennedy, former Cabinet Secretary and Chief of Staff to Governor Gray Davis:** "We would not have CALFED, the ROD, or the BDA without the political leadership that we've had. CALFED is a result of [former Interior Secretary] Babbitt deciding that this would be something he'd do before leaving office. It is also a result of Babbitt having Mary Nichols on the receiving end to bring Davis in on it."
- **Steve Hall, Executive Director, Association of California Water Agencies:** "The most significant point about the formation of CALFED is that it took the leadership of people at the highest levels of state and federal government to overcome the strong gravitational pull that has historically kept the respective state and federal agencies in their own orbits."
- **Bill Jones, San Joaquin Member, California Bay-Delta Authority:** "The only reason CALFED worked was because Governor Wilson invested his personal political capital…unless [Governor Schwarzenegger] puts his muscles behind [CALFED], that is the only way it is going to work."
- **Steve Johnson, Director of Strategic Initiatives, California Nature Conservancy:** "I think it is extraordinarily difficult to develop a process that substitutes for leadership. I have never seen that. The challenge is to create a structure that supports leadership, but that does not substitute for leadership."

This structure has three notable characteristics as it relates to leadership:

1. ***Reliance on board structure.*** The central element of the governance structure is the Bay-Delta Authority. The board has 24 members: 12 state and federal officials, seven public members representing regions in the state, a member of the Bay-Delta Public Advisory Committee, and four ex-officio legislative members. The purpose of the board is multiple, but providing leadership – via direction and oversight – is among its primary functions.
2. ***Senior leadership is diffused.*** Technically, the responsibility for CBDA functions rests with the board, which then can delegate responsibility to the director. In practicality, the policy assumes that the executive director will orchestrate the efforts of multiple agencies – some of which are led by appointees who are the director's equal or superior, or are part of the federal government. The executive director is appointed by the Governor, but works for the board. The chairperson of the board is selected by the Governor, but is not a full-time state employee. The secretaries of the U.S. Department of Interior (or her designee) and the state Resources Agency – positions that played key leadership roles in the planning stage of CALFED – are on the board, but they only represent two of 24 votes.
3. ***The day-to-day responsibility is performed by CBDA's staff.*** The current arrangement muddies the responsibility for CALFED's success as it relates to the leadership of the implementing agencies. With the CBDA board meeting only periodically and the chairman a volunteer, the day-to-day leadership falls to the executive director and the rest of the CBDA staff. The staff has struggled to carry out the range of management-like functions – reviewing plans, approving budgets, attempting to measure progress – without any of the legitimacy of the already existing management structure.

The Structure Dilutes Authority and Masks Responsibility

Discussions about leadership often gravitate to personalities, and clearly leaders often succeed or fail based on their individual capacities. The leadership competencies required for CALFED to succeed are multiple and demanding, and are described in the box on page 43.

Many treatises on leadership and organizational design make the point that structure cannot compensate for weak leadership, but bad structures can stifle all but the greatest leaders. The leadership structure for CALFED and the Bay-Delta Authority contains many of the elements that make it difficult for leaders to succeed. Among them:

The leadership structure does not focus responsibility and authority.

It is not clear who is responsible – or accountable – for the success or failure of CALFED, and for orchestrating the efforts of state and federal implementing agencies. Neither the secretary of the Resources Agency, the chairman of the CBDA board, or the executive director of the CBDA has the explicit (or currently, the implicit) authority to orchestrate the State's internal efforts, let alone the external relationships that are integral to CALFED.

Many expect the Bay-Delta Authority to speak for the entire CALFED Program, but it has not become a unified and clear voice for all of the CALFED implementing agencies. A number of factors contribute to this disconnect. To some, the CBDA is just one of many CALFED agencies, charged with coordination and oversight, but without authority over any of the implementing agencies. The non-voting status of the federal agencies dilutes the ability of the CBDA board to "speak" for the CALFED implementing agencies. And because the board has public and legislative members, the CBDA represents interests beyond the implementing agencies.

In addition, with an unpaid chairman and an executive director appointed by the Governor, the responsibility for the CBDA is bifurcated. While the secretary of Resources has responsibility over the key agencies involved in CALFED, the CBDA as a venue for coordination confuses those traditional lines of influence.

This diffusion frustrates any effort to assign responsibility for failure or success, or even to decide who should resolve specific issues. For some stakeholders, however, the diffusion allows them to rely on their historical alliances with individual agencies to influence decisions that matter most to them. This power flow, however, can undermine the overarching goals of balanced improvement.

The leadership is disconnected from the traditional hierarchy.

In the executive branch, power centers emerge based on the authority of specific positions, placement within the hierarchy, or the capacities of individuals and their personal connections to the elected chief executive. Exercising leadership, particularly over a multi-agency effort, usually requires a combination of these attributes. But the current organizational structure confuses each of them.

While California relies on an agency structure and agency secretaries are considered "cabinet positions," department directors also are appointed and serve at the pleasure of the Governor. The agency is expected to

coordinate related programs, review budget changes and other policy proposals of individual departments, and provide leadership for agency-wide initiatives. But the secretaries do so without the legal authority to direct the actions of departments, and secretaries have even less control over boards and commissions.

The CBDA makes a murky organizational chart even murkier. Necessarily, the CBDA involved state departments in different agencies and the agency secretaries themselves. This is true on the federal side, as well. Federal officials are candid about the awkwardness of having officials of different "ranks" sitting next to each other with presumably the same weight in making a decision. This arrangement also has a chilling effect on public discussions about controversial policy options.

It is difficult in government to create accountability because most important efforts involve more than one government agency or level of government. CBDA, as an overlay with management-like functions but without management-like authority, appears to actually undermine the limited accountability that can be derived from the agency structure.

To the extent that problems need to be resolved within the executive branch, the expected roles and responsibilities of CBDA officials, agency secretaries, department directors and the Governor's direct staff are

Leadership Critique

- **Pete Wilson, former Governor of California:** "CALFED has substituted process for leadership."
- **Walter Bishop, General Manager, Contra Costa Water District:** "In practice, CALFED has not provided the leadership or direction to the implementing agencies and with a few exceptions, the implementing agencies have not adopted CALFED goals or objectives as priorities that they are obligated to achieve."
- **Susan Kennedy, former Cabinet Secretary and Chief of Staff to Governor Gray Davis:** "Political leadership is the main issue, and we are lacking that right now...Without the big personalities that get things done, and without the investment from the state or federal administrations, no one at BDA has the political permission to institute beneficiary pays...Government happens whether or not political leadership is there."
- **Sheila Kuehl, California State Senator:** "A concomitant issue is that we do not know who is speaking for CALFED to [the Legislature]."
- **Michael Machado, California State Senator:** "Politically, we are lax on leadership...Leadership has a big role to play. The obstacle is that the entities that have the most resources also have the most political sway."
- **Paula Daniels, Public Member, California Bay-Delta Authority:** "The Authority was created within Davis' first term. The members' terms were created to last past the Governor's term to provide for continuing leadership. To have someone to continue the vision. The sudden administration change changed all of the agency leadership."

unclear. To the extent that the administration must communicate clearly, sometimes forcefully, to federal agencies, legislative members and stakeholders, the CBDA creates the illusion of a focal point that does not really exist.

The structure allows difficult decisions to be avoided.

Some of the complaints about CALFED result from difficult decisions that have not been made, such as completing a balanced and agreed-upon finance plan. A number of experts also have identified challenging issues that were not resolved in the ROD that government officials must deal with, such as the effects of global warming. Some participants assert that CBDA needs more authority to deal with these kinds of problems.

Leadership Going Forward

- **Bruce Babbitt, Secretary of the Interior, Clinton Administration and Douglas Wheeler, Public Member, California Bay-Delta Authority:** "We have a plan and we have the resources. All we need now is the political will to move forward."
- **Pete Wilson, former Governor of California:** "It is time to reinvigorate this program and restore CALFED to the policy prominence it deserves. Left alone, to their ways, Sacramento and Washington will simply not wade into this thicket of issues until the next drought or until 48 million people demanding clean water from their taps returns us to the crisis mode. We need leadership and a leadership structure to make the hard decisions now to prevent challenges from growing into crises."
- **Walter Bishop, General Manager, Contra Costa Water District:** "The CALFED Authority should provide leadership on policy and accountability on a programmatic level; however, the Legislature should make their determinations critical for future funding to agencies."
- **Cynthia Koehler, environmental consultant:** CALFED needs "to recruit a leader of public stature who is widely trusted and respected and has strong personal commitment to the restoration mission."
- **Betsy Rieke, former Assistant Secretary, Department of the Interior:** "You can have a lot of transparency but it should be organized with direction from one centralized person. You have to be responsive, but in the end, you have to have enough authority to make difficult decisions yourself, in a room with your staff. That doesn't have to preclude transparency. You can have well established forums; with CALFED you need more formalized participation."

  "The executive should be the decision-maker. That needs to be clear. There are a lot of decisions and the process is amorphous."
- **Marc Holmes, Public Member, California Bay-Delta Authority:** "Everyone is looking for someone to defer to. Leadership and direction must come from the Governor's office. The Governor must instruct the secretary of Resources to say that we have to make CALFED work."
- **Patrick Johnston, Public Member, California Bay-Delta Authority:** "Legislative leadership is needed to solve financing issues: The Governor could say that beneficiaries should pay, but call it a fee not a tax. But beyond that, someone has to tee it up for the Governor…The responsibility falls on the state leadership."
- **Al Montna, Public Member, California Bay-Delta Authority:** "The Governor or Secretary Chrisman or the feds must be engaged. Over the past few years there just wasn't strong leadership."

The current governance structure does not explicitly vest with any position or agency the political and policy responsibility for brokering difficult agreements, setting priorities, resolving high-level conflicts, and delivering solutions to the Governor and the Legislature.

The CBDA board is an awkward mechanism to perform this function. Department-level officials are reluctant to debate issues or advocate policy positions that have not been vetted and cleared by senior officials. Even on smaller issues, department officials are unlikely to disagree in public. Some stakeholders have expressed frustration that federal officials "speak with one voice" at authority meetings – ironic, given the goal of Club Fed to accomplish precisely that.

A number of officials and stakeholders have advocated a return of the policy group, a mechanism developed during the planning phase of CALFED to encourage cooperation among the departments. Issues that could not be resolved at the staff level were elevated to management and then if necessary senior management. Policy commitments were made by the state and federal secretaries.

The policy group frustrated some stakeholders and legislators who believed too much was decided behind closed doors without adequate public vetting or consultation. However, the CBDA board – because of its makeup, its limited authority, the public setting and its nascent decision-making procedures – has not adequately assumed the role of the policy group.

The political leadership needed to maintain strong federal-state ties and strong executive-legislative ties is not consolidated and vested with an individual.

Federal officials assert that they are still committed to CALFED. But state officials are increasingly frustrated that the federal government has not funded the program at the level anticipated in the ROD and that Congress did not authorize federal agencies to fully participate in the CBDA. State participants also believe that federal agencies are not as engaged in CALFED as they once were. While it is unclear how involved the federal government must be for CALFED to reach its goals, the program was predicated on an equal commitment of executive-level support, agency buy-in, and financial contribution.

The architects of the governance structure admittedly struggled to develop a workable partnership of federal and state agencies that does not infringe on the necessary legal separation of the two governments. Some participants describe this as an organizational design problem. Others describe it as an issue that cannot be resolved by structure – and

the political will that was once present to overcome bureaucratic obstacles is now absent.

The state-federal partnership also is an executive-legislative partnership times two. To be sustained over time, the goals and commitments to CALFED must be shared by state and federal executive branches, and state and federal legislative branches. Some participants suggest that it is too much to ask for California's congressional delegation to become united on the issue, and there is broad agreement that unanimity is only possible if there is strong consensus among the stakeholders on all of the substantial elements of CALFED. Achieving that consensus will require substantial political authority and extraordinary diplomatic skills.

Finally, these problems have an added consequence of undermining efforts to hold government agencies accountable for progress. If the authority rests with the various agencies, only those agency officials can be held accountable.

The Leadership Structure Needs to be Strengthened

Restoring the leadership element of CALFED will require, first, political leadership on the part of the Governor to determine what he wants to accomplish and that CALFED has his support. The Governor, in consultation with federal leaders, needs to find a capable leader and delegate the political authority to develop the relationships, particularly with federal officials. The leaders will need to direct the bureaucracy, and forge the compromises that are necessary.

The crafters of CALFED were correct to realize that to be successful CALFED would need a governance structure that served many functions. But the first function it must provide is to empower clear and strong leadership along the following principles:

- ***The leadership must be directly responsible and accountable to the Governor and the Secretary of Interior.*** It is a mistake to try and insulate CALFED from political vagaries inherent with the Governor's office. The Governor must be responsible and accountable; in turn, the power of the Governor must be deployed if CALFED is to succeed.

CALFED Policy Group

From the signing of the Accord through the creation of the CBDA, the CALFED Policy Group served as the primary governance body, providing program direction and agency coordination. At the time the ROD was signed, the Policy Group included representatives from the following departments:

State Participants

- Resources Agency
- Department of Water Resources
- Environmental Protection Agency
- Water Resources Control Board
- Department of Food and Agriculture
- Delta Protection Commission
- The Reclamation Board

Federal Participants

- Fish and Wildlife Service
- Bureau of Reclamation
- Geological Survey
- Bureau of Land Management
- Environmental Protection Agency
- National Marine Fisheries Service
- Natural Resources Conservation Service
- Forest Service
- Western Area Power Administration
- Army Corps of Engineers

Source: CALFED Bay-Delta Program Implementation Plan. July 2000.

- ***The leadership must have the authority to direct interagency efforts.*** Good leaders will develop a cohesive senior management team comprised of the leadership of the departments involved, but CALFED cannot succeed if state agencies do not have to make it a priority and cooperative efforts are seen as advisory.
- ***The leadership must have primary responsibility for maintaining the state-federal relationship.*** Constitutional issues are not the biggest barrier to a state-federal partnership. It will be incumbent on the state to continuously nurture the best relationship possible with federal counterparts and then fashion the state's efforts to ensure California achieves important goals.
- ***The leadership must be responsible for legislative and congressional support.*** Legislative leaders need to be consulted in how to proceed, they need to be persuaded CALFED is worthy, and the Legislature needs to be told straight up – from the administration's perspective – what they must provide in terms of policy for CALFED to succeed.
- ***The leadership must be responsible for public and stakeholder support.*** The best way to keep the public involved is to provide good information and meaningful opportunities to influence decisions. Stakeholder involvement is essential to improving decision-making and reducing conflicts.

Recommendation 2: The California Bay-Delta Authority as a coordinating entity should be replaced by a leadership structure that has the authority to accomplish CALFED's mission. The Governor should ensure a high-caliber individual is in place to lead the initiative. The enacting legislation should accomplish the following:

- ***The Secretary of Resources should be responsible.*** The secretary has other responsibilities, but the early days of CALFED showed that the secretary, with the assistance of an undersecretary dedicated full-time to the project, can provide the necessary leadership.

- ***Restore the policy group.*** A senior management team comprised of the primary state and federal departments – and the lead scientist – should meet regularly to ensure true integration. The Secretary of Resources and the U.S. Secretary of Interior or designee should co-chair the group and participate as necessary to resolve those conflicts or approve those actions that could not be managed at a lower level.

- ***The Policy Group should be focused but flexible.*** Key agencies include the state Department of Water Resources, Department of Fish & Game, Environmental Protection Agency, State Water Resources Control Board and the federal Fish & Wildlife Service, Bureau of Reclamation, U.S. Environmental Protection Agency, Army Corps of

Engineers and the National Marine Fisheries Service. The group also could be expanded as necessary to include state or federal agencies that could contribute to Bay-Delta solutions.

- ***Conduct an annual Bay-Delta summit.*** The policy group should meet in public at least once a year to explain its activities and respond to public comments and questions. The summit should provide a substantial opportunity for public understanding of progress, challenges and the latest scientific findings regarding the Bay-Delta.

- ***Reassign CBDA staff.*** The staff capacities of the CBDA are essential to orchestrating the CALFED effort. The staff should be assigned to the policy group, under the direction of the secretary. A performance-based strategy for deploying the staff is described in Finding 3.

Legislative Role: Policy-makers must provide consistent involvement.

Just as the Legislature is a difficult venue for resolving complex water problems, legislators have had difficulty finding a way to meaningfully engage in CALFED.

The statute that created the CBDA placed two senators and two assembly members (the policy committee chairs and vice chairs) on the board of Bay-Delta Authority. But the lawmakers are non-voting members and they rarely attend board meetings. Still, for a number of reasons, lawmakers must find a way to better engage in CALFED, if it is going to be successful over the long term.

CALFED, as with all water issues, has its own politics. Geography, more than party affiliation, defines water politics in California. And while water politics promotes unusual legislative alliances, it complicates efforts to resolve issues through legislation.

CALFED's management challenges are complex. Understanding the difficulties facing CALFED requires significant commitment. It will be hard to develop that understanding through occasional public hearings or in the context of budget discussions. Term limits make it even more difficult for legislators to be effective or for the Legislature to maintain consistent guidance and support.

Results will accrue slowly. Several generations of lawmakers will occupy the statehouse over CALFED's timeline. Few can dedicate political capital to issues that won't mature on their watch.

Conveying progress to constituencies is difficult. The gains made in CALFED are often subtle and not always appreciated by constituencies who reflect just one of the many perspectives involved.

But to sustain support, CALFED must overcome these challenges and be seen as an essential public asset. In the Everglades and Chesapeake Bay, policy-makers have actively worked to maintain a shared interest in restoring the ecosystem and meeting public needs.

Chesapeake Bay. Led by three states, the District of Columbia and the federal government, the Chesapeake Bay Program is restoring the bay. To support the effort, officials formed the Chesapeake Bay Commission comprised largely of state legislators. The Commission helps policy-makers develop a common understanding of problems and promote shared solutions.

Florida Everglades. In partnership with numerous federal agencies, local and tribal governments, Florida is working to restore the everglades. A commitment by state and congressional elected officials to shepherd the project has resulted in continuous funding, technical assistance and support. At the core of this commitment is recognition that the Florida Everglades are a shared public treasure.

Recommendation: To ensure public support and political capital, policy-makers should develop mechanisms that ensure consistent and meaningful involvement in CALFED.

- ***Establish a joint state-federal Bay-Delta coalition.*** State and federal lawmakers should form a bipartisan caucus focused on the estuary. They should work to develop a common understanding of issues, develop consensus legislation needed to authorize improvements and seek the appropriate funding.
- ***Convene an annual Bay-Delta conference for policy-makers.*** Lawmakers should convene an annual conference that brings together local, state and federal elected officials to increase awareness of the estuary, the gravity of its problems and the potential for reform.

Performance Management

Finding 3: CALFED is not managed to improve performance, incorporate the best science into management decisions, or create accountability for outcomes.

CALFED won early praise for knocking down bureaucratic walls and spurring innovative and collaborative solutions to Bay-Delta problems.

State and federal agencies developed a plan to achieve four objectives for the Bay-Delta – better water quality, stronger levees, more reliable water supplies and a restored ecosystem. The program includes 10 components that address water management and ecosystem issues and two elements – science and governance – address "how" the program would be managed.

Under the "CALFED way," government agencies were directed to embrace a shared approach to fulfilling their missions. Agencies opened new lines of communication to broaden their understanding of related issues. They developed collaborative solutions to problems and assumed cooperative ownership for the outcomes of their actions.[83]

But CALFED's drafters worried that agencies would retreat to their old ways when high-level attention shifted elsewhere or when complex problems arose. The governance structure was intended in part to keep agencies from closing off lines of communication, putting their own priorities above CALFED's goals, and resorting to turf wars to resolve issues. The inoculation against these problems was a shared governance structure charged with coordination, oversight and transparency. However, legislation enacted to institutionalize that structure scaled back the strong joint commission proposed in the ROD.

The previous findings described the structural changes necessary to fortify the State's leadership for CALFED. This chapter describes the challenges of managing the complex program and now that management could be improved.

CBDA Coordinates Agency Actions

State law gives the Bay-Delta Authority responsibility for coordinating CALFED-related efforts of the other implementing agencies. To ensure that the agencies are full partners, the CBDA governing board includes representatives from 12 different CALFED agencies, along with public

and legislative members. The CBDA board and staff have deployed a variety of processes and mechanisms that are intended to align efforts of the various agencies.

CBDA reviews CALFED plans and budgets. Each year the implementing agencies are required to update their CALFED plans. The plans explain the activities they will take, the resources that will be applied and the progress that is being made. The CBDA evaluates the plans for consistency with the ROD and recommends improvements. If the board finds a plan to be inadequate, it makes recommendations for improvement to the Legislature.[84] Similarly, CBDA reviews proposed budget changes and makes recommendations regarding CALFED's funding. It has greater involvement in the state budget process than the federal process. CBDA's executive director can review changes proposed by state agencies before they are considered by the Department of Finance. Federal proposals, however, are not shared with CBDA until the President's budget is submitted to Congress.[85]

CBDA promotes solutions to CALFED financing. The drafters of the ROD anticipated a combination of federal and state funds, along with contributions from "beneficiaries," primarily water users, to pay for CALFED activities. The specifics of the financing strategy were to be worked out through CALFED's governance process. As described earlier, the CBDA's efforts to develop a financing plan have been controversial and unsuccessful. The CBDA is redrafting and negotiating the plan, with the goal of submitting a proposal to policy-makers.[86]

CBDA compiles data and reports on performance. State and federal law specify different strategies for evaluating CALFED's performance. State law makes the CBDA responsible for tracking performance. But under federal law, the Interior Secretary is responsible for reporting CALFED's progress to Congress. To fulfill this responsibility, the CBDA prepares an annual report, assessing whether CALFED's implementation is balanced and sufficient. The report is submitted to Congress, the Interior Secretary, the Governor and the Legislature. If the CBDA determines CALFED is not making sufficient or balanced progress, it can propose a new implementation schedule.[87]

CBDA "daylights" issues and proposals. CBDA is expected to increase CALFED's openness and transparency through the open meetings of its board. The meetings are an opportunity for publicly discussing program plans, financing strategies, the degree of progress and new challenges.

Management Structure Undermines Performance

The shared federal and state decision-making accomplished in the early phases of CALFED, and envisioned in the ROD, has become strained. The strong joint state-federal commission proposed in the ROD was not created and leadership has waned. The CBDA's time-consuming procedures are not the functional equivalent of integrated management. The walls between agencies are being rebuilt and institutional governance has proven to be a poor substitute for assertive, yet collaborative leadership. Among the specific problems:

The CBDA lacks the authority to direct agencies.

State statute gives the CBDA little authority over state agencies and federal law gives it none over federal agencies. Federal law authorizes federal agencies to participate in CALFED, but restricts their involvement in CBDA to that of non-voting members.

Nevertheless, the CBDA relies on mechanisms that are typically used within a management structure to direct activities. In government, some of these activities are delegated to "control" agencies, such as the Department of Finance. But either way, reviewing and approving action plans and budget changes and evaluating performance are not done on a voluntary basis.

The original genius of CALFED was to provide a mechanism for agencies to coordinate their actions and resolve disputes. The former regional director of the U.S. Bureau of Reclamation, for example, described a breakthrough weekend, when federal officials mapped out their obligations and responsibilities and discovered they had more authority and flexibility than they realized to solve problems.[88] In turn, when the agencies could not reach agreement, the issue was elevated to an official with the authority to make a policy call.

But participants said the traditional agencies now work within program elements that have become the new silos – not flexible or integrated in ways that would allow agencies to share talents, resources and authorities toward a common end.

CBDA, in turn, lacks the authority and leadership capacity to push integration, resolve conflicts or reconcile a CALFED activity with the priorities of individual agencies. Moreover, because CBDA is expected to perform this function, the management structure that is already in place in state government – principally the Resources Agency – has not stepped in to drive progress as it did before the creation of the CBDA.

As a public venue, the CBDA board can stifle interagency coordination.

The CBDA structure fuses the management, public involvement and oversight functions – and in doing so disables the management structure from resolving problems and coordinating operational efforts. While openness and transparency are desired attributes of the governance structure, the CBDA experience demonstrates the limits of trying to conduct management deliberations in public.

In some instances, CBDA's efforts to identify and resolve problems have increased the tension between CBDA and in the implementing agencies. The U.S. Fish and Wildlife Service and the U.S. Bureau of Reclamation, for example, bristled when the Bay-Delta Authority attempted to review Central Valley Project (CVP) regulatory and management decisions impacting the Bay-Delta's fishery. Other state agencies were concerned about the federal actions and wanted to discuss their impacts.[89] But the federal agencies asserted the issue was not a concern of CALFED, and certainly not appropriate for a public discussion by the CBDA.[90]

CBDA budgeting and finance procedures are ineffective.

Annual budgets are the government's primary mechanism for setting priorities and putting words into actions. The budget mimics the organizational structure – a series of individual decisions with little ability to ensure strategic alignment to optimize outcomes. State funding for CALFED is spread across a dozen state agencies, each with its own budget and separate legislative oversight.[91]

The CBDA's process is an attempt to use budgeting to coordinate activities. But since it does not have the management authority – or the approval authority of a control agency, the CBDA's process is not an effective tool to improve budget decisions.

Similarly, the CBDA's inability to develop a workable strategy to finance CALFED displays its limits to effectively represent the Governor in negotiating policy proposals, either with the federal government, among the stakeholders or state legislators.

Planning and performance reporting are not outcome-based.

An axiom of effective management is that if something can't be measured, it can't be managed. State law directs CBDA to track and assess program performance, but it has not prescribed performance measures. Its efforts to cajole agencies to adopt performance measures have been unsuccessful. In 2004, for example, CBDA staff prepared draft metrics for assessing progress.[92] But the metrics were never finalized or refined after being presented to the CBDA board for

consideration. Five years into implementation, meaningful comprehensive performance measures are still estimated to be three years away.[93]

In lieu of comprehensive performance measures, CBDA uses information in program plans to prepare an annual progress report. But the reports do not rigorously validate the information supplied by agencies.[94] Part of the problem is the reluctance of officials on the board to publish a report that describes their own shortcomings.[95] The reports do not provide meaningful multi-year performance measures, and rely heavily on outputs (such as money spent) rather than outcomes (such as improved water quality). The reports are criticized as being of little public value.[96]

Decisions and decision-making procedures are unclear.

Implementing CALFED will require hundreds of important decisions, some more controversial than others. But to many of the agency officials and stakeholders, the process and timeline for evaluating options and making decisions is unclear. Officials describe the process as a series of "mind-numbing meetings" that do not resolve issues. The leadership of the State Water Resources Control Board said it is not clear how that regulatory agency should effectively use its tools as part of the CALFED effort to improve water quality, improve water reliability or protect the environment. While there are some exceptions, the critical paths toward

Increased Flexibility for Science Boards Needed

CALFED's designers envisioned verifying effective science use and infusing new knowledge into the program by using boards of independent scientists.

There are presently three science boards:

- The **Independent Science Board** (ISB) advises and makes recommendations on science in all program elements.
- The **Ecosystem Restoration Science Board** was created to assist the Ecosystem Restoration Program's implementation by providing scientific advice and guidance with a management orientation.
- The **Water Management Science Board** reviews specific issues of strategic importance for program elements that contribute to the goals of water supply and quality.

The present structure causes problems that prevent the science program from being as productive and relevant to CALFED as it could be. Johnnie Moore, CALFED's former lead scientist, recommended reforming the board structure in two ways:

- Keep an ISB, but with fewer members, as a permanent review board to advise on emerging issues, review research and monitor plans. It also would review performance measures and recommendations of other science advisory panels.
- Small, time limited, technical advisory panels should perform oversight and provide peer reviews to meet specific CALFED needs. These panels would submit their reports to the ISB for review and comment before transmittal to the CBDA.

many of the objectives have not been mapped. It is not clear to participants when decisions will be made, the basis for making those decisions, and who will make those decisions.

New scientific analysis is not consistently used in decision-making.

All major environmental restoration efforts struggle to make improvement without a comprehensive understanding of what is harming the ecosystem and the most effective way to reduce that impact. A generation of experience has equipped managers and regulators with some information, but the uncertainties make it difficult to act definitively and confidently. In addition, many public management efforts lack the basic discipline of strategic management, which uses performance information to make changes to how business gets done.

The ROD calls for adaptive management to deal with the uncertainties and to make sure that the CALFED implementing agencies are efficiently pursuing their objectives. The ROD and the CBDA statute also establish a science program to inform decision-making with the best available understanding of the Bay-Delta ecosystem. But the science capacity has not matured to inform decisions, and in some cases available science is not being incorporated into decisions.

A recent decision by the U.S. Bureau of Reclamation provides an example of the importance of science. In 2004, a letter signed by 19 members of Congress raised concerns alleging the Bureau improperly undermined an environmental review of a proposed operating plan for the CVP and SWP to quickly renew water contracts in California.[97] A subsequent audit by the U.S. Department of Commerce Inspector General questioned the scientific integrity of the biological opinion supporting the Bureau's proposed plan.[98] A special independent science panel has been charged with reviewing the science supporting the biological opinion and a case has been filed to pursue court action on the plan.

Accountability for performance is muddled.

The CBDA's limited authority, coupled with diffused leadership, and a lack of performance measures have limited progress and muddled accountability. Policy-makers cannot determine why the Bay-Delta ecosystem is collapsing, the right fix for levees or how to finance the solutions. Some stakeholders argue that the CBDA cannot ensure performance without adequate authority. Others question the wisdom of interposing any governance body – let alone one as amalgamated as the CBDA board – into the traditional administrative structure. Federal and state agencies act under the authority of the President and the Governor. Injecting an entity such as the CBDA diffuses and masks responsibility,

making it more difficult for state and federal lawmakers, the Governor or the President to ensure performance.

Toward Performance-based Management

The ROD proposed a strong governance structure that deployed science-based adaptive management so decisions would be based on the best information available, with progress measured and balanced.

At the core, CALFED was envisioned as an inter-governmental effort that would resolve conflicts and allow state and federal agencies to accomplish together what they could not accomplish separately. That purpose, and hope, survives. Creating a performance-based management system, however, will require rethinking how the shared effort is organized and managed.

Build the policy group into an effective management team.

The cooperative spirit fostered by the leadership of former Governor Wilson and Interior Secretary Babbitt has diminished. To some degree state and federal agencies have lost the sense of common ownership for CALFED solutions – what Assistant Interior Secretary Peltier described as the "CALFED spirit." Restoring that spirit will be essential, no matter what course of action is set.

As described in Finding 2, the foundation for the partnership is a leadership position and a senior management team – the policy group – comprised of the department heads and other officials with a critical role in CALFED. That management team needs to organize its efforts to accomplish the specific objectives of CALFED. The team needs to form flexible alliances necessary to execute specific initiatives. It needs to employ rigorous performance-based tools, and decision-making procedures that make use of the best information available to accelerate progress.

This team would form the executive branch structure responsible for carrying out CALFED activities, resolving disputes and identifying issues that need to be elevated to policy officials for their concurrence.

State Water Resources Control Board

CALFED officials have consistently been challenged by how to involve the State Water Resources Control Board in a coordinated effort to restore the Bay-Delta estuary.

The water board allocates water rights, regulates water use, and establishes and enforces water quality standards. The board uses a quasi-judicial process to make these decisions, and as a result cannot participate in negotiations that might result in a formal board review. While the water board shares CALFED's goals and objectives, officials with the board say its role in achieving those goals is unclear.

By setting high standards to protect the estuary, the board could be used to push stakeholders to find ways to implement those standards. The board also could review and issue orders that formalize negotiated solutions. And the board can impose sanctions if standards or orders are not followed.

But those tools have not been employed by CALFED in a strategic way. To make the best use of existing resources, CALFED should explicitly and strategically define the role of the water board in achieving CALFED goals.

Make use of performance-based management tools.

In addition to structure, a performance-based management system will incorporate tools that align efforts, distill responsibility, and enable innovation and accountability. Among the elements:

- ***Strategic planning.*** Robust strategic planning could clarify among partnering agencies what will be done, by who, when and the outcomes that will result. The current planning process offers some insights, but it is intended more to inform stakeholders than to create a comprehensive and effective strategy shared by the partners. In turn, CALFED programs need a detailed and evolving operations plan to guide their individual actions.
- ***Program leaders.*** Every team needs a leader. Agencies collaborating to manage a shared CALFED program need a designated leader to keep the management team informed and engaged. Vesting a department-head with project responsibility and authority could help improve efficiency and increase accountability.
- ***Performance contracts.*** Performance contracts among department heads could specify expected deliverables and help to reinforce shared ownership of outcomes. Contracts can clarify responsibilities, obligations and expectations, enabling more effective accountability.
- ***Management protocols.*** "Best practice" protocols for managing programs also could improve outcomes. Protocols can help ensure that roles and responsibilities are clear, that implementation plans are realistic, and that performance is consistently measured.
- ***Administrative flexibility.*** Joint initiatives require more flexibility than is allowed under existing administrative rules. CALFED's management teams should be able to develop innovative procedures for sharing resources and pooling costs. For example, agencies may need greater flexibility on whether to build in-house expertise or acquire those services from other public agencies or the private sector. Establishing a revolving fund to bank savings or revenue might also make it easier to advance commonly held goals.
- ***Innovative solutions.*** Managers need to be encouraged and allowed to fashion the right teams of expertise and resources to accomplish specific tasks. CALFED's solutions should be customized to the particular problems being addressed. Officials sharing responsibility for CALFED outcomes are in the best position to determine which decision-making process will work the best.

Eliminate Conflicts and Dysfunction

To improve performance, the State must also eliminate these conflicts in the existing management structure:

- ***Internal vs. external oversight.*** The structure fuses internal management oversight with external public and legislative oversight. Internal oversight, through a clear chain of command from the Governor, is a critical element to ensuring accountability for progress. External oversight may also be important for the Legislature to fulfill its role and to maintain confidence among stakeholders and the Congress.
- ***Voluntary coordination and advisory oversight.*** Public agencies might be able to facilitate cooperation on a voluntary basis or oversee other agencies on an advisory basis, but no agency can do both of those functions well. By restoring coordinating and internal oversight to the management structure, the State could eliminate this dysfunction.
- ***Transparency vs. managing in public.*** CALFED should continue to expand public involvement in resource management; Finding 5 describes ways that stakeholders and the public could be better aware and more meaningfully involved in decisions impacting the Bay-Delta. While management discussions need not be in public, the senior state and federal officials still need to regularly meet in public – to describe their actions and allow for public debate on the direction and the progress of CALFED.

Instill science-based adaptive management tools.

The implementing of CALFED is really a series of difficult decisions. One member of the CBDA board refers to it as an ongoing settlement conference.[99] That view stresses the need for conflict resolution as needed along a critical path. But the ROD also prescribed a fact-based process, along with a deliberate effort to expand the scientific understanding of the estuary. Fortifying the management of CALFED creates a new opportunity to embed adaptive management into decision-making and to bolster the capacity of science to inform those decisions. To do so, will require the following:

- ***Establish explicit critical paths for important decisions.*** Based on strategic plans, implementing agencies can articulate key decisions, the procedures that will be used to make decisions, timelines when decisions will be made and the measures that will be used to assess those decisions.

- ***Incorporate experience into decision-making.*** Managers need to explicitly use data to make changes within authority and coordinate their efforts with partner agencies. The data also needs to be scaled up to surface policy, budget or other issues that need to be resolved by the Governor's office and the Legislature. The data also can be used to help diagnose problems and guide researchers who are trying to provide a scientific basis for decision-making.

- ***Incorporate CALFED's lead scientist into decision-making.*** CALFED's lead scientist is hired by the CBDA board, which isolates the science program and the lead scientist from much of CALFED-related decision-making. In turn, many managers lack the expertise to

Adaptive Management

The CALFED ROD commits state and federal agencies to adaptive management. Adaptive management refers to management interventions that have been crafted to accomplish clear goals based on conceptual models or hypotheses. Based on results, the management intervention is adapted based on what has been learned. In a general sense, adaptive management infuses continuous learning into management decisions. In practice, competing ideas have emerged over what constitutes adaptive management and how it should be applied.

For some experts, adaptive management pairs management interventions and experimental designs to find solutions where there is great uncertainty and high risks, but the potential for big rewards. For example, adaptive management could be a valuable strategy to explore the uncertainties associated with storing used nuclear fuel. But for others, adaptive management has more fundamental applications and involves adjusting management practices based on lessons learned. Some scholars have called for broad scale application of adaptive management in environmental restoration efforts. In the CALFED program, adaptive management has been applied to improve the operations of the Delta cross channel, Battle Creek, and the Sacramento and San Joaquin River watershed restoration efforts.

But adaptive management has not become a way of doing business at CALFED. Adaptive management could help CALFED address four concerns:

1. ***Improve the effectiveness of interventions***. Adaptive management requires managers to tap state-of-the-art knowledge and make explicit their rationales in decision-making. But implementing agencies have allocated resources and made decisions without incorporating the latest science or communicating their rationales to stakeholders. For instance, the science board has called into question the appropriateness of the wide-ranging use of fish screens given the dearth of evidence on their effectiveness.
2. ***Promote accountability to outcomes***. Adaptive management pairs management interventions with the monitoring of results. Although some grant programs have required monitoring, stakeholders report that the CALFED programs are unable to document the progress toward declared goals.
3. ***Enhance the efficiency of operations***. A core concept of adaptive management is to use information from past performance to improve future decisions. But CALFED has not looked at past policies and practices to inform decision-making. The water use efficiency program plans to allocate nearly $300 million for a mix of urban and agricultural conservation, recycling and desalination projects. These investments follow $904 million in investments in the first five years of the project. But the program has not examined the results of previous investments to guide future expenditures.
4. ***Tap science to address areas of high uncertainty***. Adaptive management also is used to craft experimental designs that test assumptions about how the ecosystem will respond to different interventions. This use is particularly important when resource managers have ideas about how problems might be solved, but little evidence to support those ideas. CALFED has made only limited use of adaptive management in this regard.

CALFED needs to embrace adaptive management if it wants to accelerate progress toward its goals.

Sources: Interviews with Barry Gold, former Director, Grand Canyon Monitoring Research Station; Lance Gunderson, Chair, Department of Environmental Studies, Emory University; Kai Lee, Rosenburg Professor of Environmental Studies, Williams College; Richard Margoluis, Co-Director, Foundations of Success; Johnnie N. Moore, Lead Scientist, California Bay-Delta Authority; James D. Nichols, Wildlife Biologist, Patuxent Wildlife Research Center, U.S. Geological Survey; Katriona Shea, Assistant Professor, Pennsylvania State University.

integrate science into management practices.[100] CALFED's lead scientist can help managers use science to develop and modify management strategies.

- ***Evaluate opportunities to better use science.*** The lead scientist should continually examine CALFED's procedures and policies and recommend ways to use science to improve performance. The lead scientist should not dictate management practices, but should translate scientific knowledge into practical management strategies.

- ***Independently verify science-based adaptive management.*** The independent verification of the science used by managers could help build public faith that program silos and politics are not limiting progress. The current structure includes independent scientific review, but the function could be improved to more efficiently accomplish its purpose. The challenge will be crafting a board that is expert, credible and independent so as to provide valuable review of CALFED's use of scientific knowledge, without creating a board that is so independent that it is not responsive to the needs of decision-makers. A board with multiple members, with formidable minimum qualifications, and appointed by multiple authorities can provide independence and balance. The lead scientist also could serve on the board to ensure a free and continuous flow of information between the board and agencies.

- ***Use Independent Science Board to help expand knowledge.*** The ROD recognizes the need to invest resources in expanding scientific knowledge about the Bay-Delta's ecosystem and its use as a water resource. An independent science review board should guide the research agenda to ensure that the appropriate issues are probed. The board could oversee and award research grants. It could collaborate with institutions to expand scientific research efforts. It also could review specific CALFED problems or policies and make recommendations for science-based improvements.

The governance mechanisms established to coordinate, oversee and ensure accountability for CALFED's management have proven inadequate. Reforming the governance of CALFED will require fortifying how programs are managed, and in particular making sure that agencies are using tools that can improve performance and incorporate emerging science into decisions.

Recommendation 3: Implementation of CALFED must be strategic, performance-based, and accountable for outcomes. The Governor and Legislature should implement the following recommendations:

- ***Charter workgroups.*** The Secretary of Resources, in coordination with the U.S. Interior Secretary, should charter state-federal workgroups to implement the program components of CALFED. Each workgroup should have a designated leader, clear mission and be held accountable for progress.
- ***Employ strategic management practices.*** The Secretary, in coordination with the U.S. Interior Secretary, should require each department and workgroup to use strategic planning, performance contracts, performance measures and other strategic management practices to promote progress.
- ***Provide annual progress reports and updated strategic plans.*** Each workgroup and department should report annually on progress and provide updated strategic plans that clearly indicate how to address deficiencies, enhance efficiencies and improve outcomes. This public reporting should be part of the Bay-Delta Summit described in Recommendation 2.
- ***Appoint the lead scientist as a member of the CALFED executive team.*** The Secretary, in consultation with the U.S. Interior Secretary, should appoint a lead scientist. The lead scientist should be charged with assisting departments and workgroups to integrate science-based adaptive management into CALFED.
- ***Retain and Reform the Independent Science Board.*** The board should be charged with monitoring the use of science-based practices, adaptive management and other state-of-the-art strategies to meet goals. Members should be appointed by the Governor and the Legislature, in consultation with the U.S. Interior Secretary, based on their credentials. The lead scientist should be a member of the board and serve as a bridge between the board and CALFED administrators.
- ***Prepare an annual report.*** The board should report to the public and Legislature on the adequacy of science-based adaptive management in CALFED and offer recommendations for improvements.

Legislative Role: Policy-makers need clear measures of progress.

The cross-cutting nature of CALFED and the diffused management structure of the program complicate legislative efforts to promote accountability. Budget and oversight hearings are commonly organized by departments, with the focus on line items that correspond to a specific function. But there is no Department of CALFED, and budgets do not neatly track to CALFED functions. Instead, responsibility and authority for progress is spread among multiple agencies. And CALFED is supported with a range of funding sources – including local, federal and state funds – many of which fall outside of legislative control or cannot easily be redirected.

CBDA was expected to be a single point of accountability, and many of its specific functions were intended to be levers for holding officials accountable. But in addition to the limited authority of the Bay-Delta Authority, the accountability mechanisms have largely failed. The required annual reports are not a detailed or accurate description of successes and failures. The performance measures required by law have not been created. The judgment call regarding balance has not been the annual definitive gut check that was envisioned.

To ensure accountability and promote progress, policy-makers must put in place incentives for the administration and individual officials to tackle thorny challenges and develop acceptable solutions. First, it must be clear who is charged with making progress. Second, policy-makers require verifiable means to gauge progress.

Recommendation: As a condition of ongoing funding, the Legislature should create incentives for progress.

- ***Require performance contracts for CALFED leadership.*** In approving budget authority for the Resources Agency and the implementing agencies, the Legislature should require performance contracts for exempt appointees that outline goals, establish performance metrics, require progress reports and include provisions for continued employment.
- ***Tie on-going funding to the use of performance measures.*** The Legislature should bolster its requirement for performance measures. State funding and expenditure authority for CALFED should be limited to programs with performance measures.

Public Involvement

Finding 4: The current CALFED governance structure does not efficiently and meaningfully involve the broader public, provide the necessary transparency in the decision-making process or assertively resolve conflicts.

As water is the lifeblood for every living thing in California, the Sacramento-San Joaquin Delta is the heart of the system. While lives and livelihoods depend on this precious commodity, Californians by and large are not aware of its importance or included in the decision-making process that guides and governs the use of this shared resource.

For decades, many decisions about Delta water were made by state and federal officials behind closed doors. While these actions put the water to broad use, their decisions also led to a decline in water quality for the people of California and habitat destruction for California wildlife, eventually spawning litigation and federal intervention in the 1990s. As described earlier in this report, these problems were exacerbated by a multi-year drought, which led to crisis.

That crisis bore CALFED, a process that institutionalized collaboration and coordination among state and federal agencies with jurisdictional control over the Delta, and also embedded public participation in the decision-making process on Delta issues. CALFED also was to be a forum for stakeholders to craft agreements to avoid time-consuming and costly litigation. As CALFED's historic Record of Decision was being negotiated, state leaders found value in reaching out for broad support. Regional meetings involving stakeholders, the business community and the public were held to move issues forward.[101]

Two entities, previously detailed, were created to ensure public involvement in CALFED: the California Bay-Delta Authority and the Bay-Delta Public Advisory Committee. Yet these entities have not successfully engaged the public or even fully lived up to the promise of stakeholder involvement in the CALFED

Public Involvement

In the planning phase of CALFED, stakeholders agreed that public involvement would be key in the implementation phase. Regarding a governance entity, one of 13 agreed-upon principles states that meetings should be open and public. A governance entity should seek ways to maximize public knowledge of, and involvement in, its work and it should support involvement in the CALFED program at a community-based level."

Source: CALFED Bay-Delta Program Implementation Plan. July 2000.

decision-making process. And while the CBDA was charged with being a forum for resolving conflict, it does not have the capacity or the capital to fulfill this mission.

Two Formal Public Venues

To include the public, CALFED relies on two main mechanisms. The California Bay-Delta Authority was created by the Legislature to be the primary governance structure for CALFED, replacing the policy group. The Bay-Delta Public Advisory Committee was created by the federal government to provide stakeholder input.

The California Bay-Delta Authority. The CBDA is composed of 24 members, seven of which are members of the public representing geographic regions, plus one representative from BDPAC. An organization chart and description of the role of the CBDA in CALFED are provided earlier in this report. The CBDA has met in Sacramento every other month since August 2003, and recently has been meeting monthly. CBDA meetings are subject to the Bagley-Keene open meeting act and there is an opportunity for public comment at each meeting.

The Bay-Delta Public Advisory Council. BDPAC was established after the signing of the ROD to encourage public participation in the CALFED implementation process. Prior to BDPAC, the Bay-Delta Advisory Council provided a forum for stakeholder input.

As chartered in 2001 and re-chartered in 2003, BDPAC provided a vehicle for the stakeholders to advise and make recommendations to the Secretary of the Interior, the Governor and the Bay-Delta Authority. As re-chartered in 2005, BDPAC only advises the Secretary of the Interior and other federal officials.

As of November 2005, BDPAC had met 22 times since its first meeting in December 2001. BDPAC must meet annually with the board of the Bay-Delta Authority. BDPAC has nine subcommittees chaired or co-chaired by BDPAC members. Most of the subcommittees meet monthly or semi-monthly and some subcommittees have work groups that meet more frequently.

CBDA – Process Over Progress

The CDBA was created to provide needed transparency and accountability, but the board's public structure and public meeting process do not ensure either openness or oversight. By and large, Californians are not even aware of, much less engaged in the CALFED

process. Yet in a statewide public opinion poll, Californians ranked water quality and availability as the fifth most important issue facing the state in the future.[102] Despite this interest and concern, the broader public does not have a role in the CALFED process.

CALFED and the CDBA lack adequate decision-making procedures making it unclear when or if an issue should be publicly vetted. And while the CDBA was charged with creating a forum for resolving conflicts, it does not have the necessary competency for conflict resolution.

The State has not engaged the public on CALFED.

As previously documented in this report, the Bay-Delta estuary provides drinking water for 22 million Californians and irrigates millions of acres of crops that feed the nation and the economy. Yet most Californians, particularly those living south of the Delta, are not aware of the significance of maintaining the Bay-Delta estuary. Some have suggested that the CALFED label itself deters public awareness because it does not reflect the importance of the estuary it was designed to manage.[103]

Other ecosystem restoration efforts, such as the South Florida Ecosystem Restoration Task Force, which is charged with revitalizing the Florida Everglades, have creatively engaged the media and the public who in turn have kept pressure on elected officials to provide both state and federal funding. In an innovative collaboration with a local museum, the task force has educated more than two million people on the Everglades project.[104]

CBDA process does not provide transparency.

CBDA includes public members and relies heavily on public meetings to create the transparency that legislators and stakeholders clearly want and need. But, the preponderance of government officials on the CBDA board impedes candid discussions of contentious topics at public meetings. Agreements on the most contentious issues that should be discussed publicly are often reached among agency officials prior to the public meetings. As a result, the meetings do

Partnership for Public Awareness

The South Florida Ecosystem Restoration Task Force designated the Museum of Discovery & Science, a private, non-profit organization, as an official interpretive site for the Greater Everglade Restoration Project. The museum designed an exhibit, "Living in the Everglades," to educate the public on the Everglades restoration program. Since its inception, more than two million visitors have viewed the exhibit.

The exhibit features interactive kiosks that demonstrate the current and historical flow of water in the Everglades, the impact of human development and the scope of the restoration project. The exhibit also includes an 11,000 square foot nature trail showcasing various ecosystems.

Sources: Greg May, Executive Director, South Florida Ecosystem Restoration Task Force. October 27, 2005. Discussion with Commission and CBDA staff. Also, the Museum of Discovery and Science, Fort Lauderdale, Fl Web site www.mods.org. Site accessed November 1, 2005.

not provide the necessary transparency and often impede the progress.

Lack of procedures thwarts public involvement.

CALFED agencies and the CBDA lack procedures to determine which issues go before the CDBA board, impeding the public involvement that the CDBA was created to provide. Specifically, there are three key problems:

"CBDA is a time sink. It is pure work avoidance and never moving forward. They don't have someone with enough authority to move from A to B to C."

Celeste Cantú, Executive Director, State Water Resources Control Board

1. ***CALFED lacks adequate decision-making procedures.*** CBDA and the CALFED implementing agencies have not developed clear protocols or formal rules of procedures that determine which issues require the collaborative process of the board and which decisions should be made within the purview of the agencies.[105] As a result, the public meeting discussions are mired in time-consuming minutia and critical issues that should be aired in public sometimes are not.

2. ***CBDA lacks focus.*** Because the CBDA addresses such a broad spectrum of issues at its public meetings – including issues that some suggest are beyond the boundaries of the Bay-Delta – it is difficult for CBDA public members and non-voting legislative members to be knowledgeable regarding agenda items, much less the general public.[106]

3. ***Public members are not on par with agency officials.*** Public members are at a disadvantage, because they are not part of the everyday discussions among government officials representing the agencies and they do not have the same access to staff expertise as agency representatives. Public members contend that numerous issues are put before them without appropriate background information.[107] While public participation adds value to the process, the lack of decision-making procedures limits public members' level of involvement and their ability to influence meeting outcomes.

CBDA structure limits oversight.

The CBDA membership, which includes six Governor-appointed state officials, makes it difficult for the board to provide objective oversight. Department officials are hesitant to publicly scrutinize themselves or the work of other government agencies. Two members, the directors of the Department of Water Resources and the Department of Fish & Game, directly report to another member, the secretary of the Resources Agency. As a result, the CBDA structure is not conducive to oversight.

CBDA is not an effective forum for conflict resolution.

One of the functions of CDBA, as written in the California Bay-Delta Authority Act, was to "provide a forum for the resolution of conflicts or disputes among implementing agencies relating to the program."[108] Yet the CDBA has not proven to be an efficient or effective venue for conflict resolution and there is no incentive for agencies to bring contentious issues before the board.

Agencies and stakeholders use the CALFED process only when it is in their best interest and at times pursue goals "outside" of the CALFED process, either through litigation or other avenues that circumvent the "collaborative" process available through CBDA. To some, this trend reflects a declining commitment to inclusive and non-confrontational decision-making. Others see this as a sign that the governance structure is not vested with the authority – or has not developed the means – of resolving disputes that stand in the way of balanced progress.

Stakeholders contend that the CDBA does not provide a forum where really contentious problems can be discussed in integrated conversations nor does it have the competency to facilitate effective conflict resolution.[109]

On numerous occasions, CDBA and CALFED implementing agencies have bypassed the open and collaborative process. One of the most contentious issues facing the CBDA, enacting a finance plan, was not adequately vetted in public and the CBDA failed to adequately respond to stakeholder requests to review the finance plan and provide input.[110]

Additionally, while environmental justice is detailed as a component of the ROD, CALFED has done a poor job of achieving environmental equality in the Bay-Delta watershed. According to the Environmental Justice Coalition for Water, environmental justice supporters are rarely included in making major decisions that impact their constituents, such as the raising of Shasta Dam, which would flood ancestral ground of the Winnemem Wintu tribe.[111]

CBDA Financing Plan: Public Funding Requires Public Support

The public is unaware of major policy decisions impacting the Delta.

In addition to a void in leadership, officials have not utilized the public as a resource to help make tough policy decisions or solve complex philosophical issues such as determining CALFED beneficiaries.

State lawmakers are hesitant to ask taxpayers for additional bonds and water agencies are reluctant to impose rate increases on their customers. More time has been spent passing the charge slip than educating the public on the importance of the Bay-Delta and need for a program like CALFED to save it.

What is missing, according to Greg May, executive director of the South Florida Ecosystem Restoration Task Force, is a "culture of restoration" in California. In South Florida, the public is well educated on the importance of the Everglades ecosystem to their well-being and as a result, demand that state and federal lawmakers make tough political decisions to save it.

Source: Greg May. Executive Director, South Florida Ecosystem Restoration Task Force. Testimony before the Commission. October 27, 2005. Sacramento, CA.

Some stakeholders assert that the Bureau of Reclamation and the Department of Water Resources, in a move reminiscent of the side deals prevalent before the ROD, circumvented the collaborative process in forging the Napa Agreement and developing the federal Operations, Criteria and Plan (OCAP), as described in the box.

As a result, by not including the wildlife agencies, environmental interests, environmental justice and the fisheries, some of these entities have left the CALFED table and have returned to the courts.

Conversely, stakeholders were complementary of the recent effort by the Department of Water Resources to develop the California Water Plan Update 2005.[112] DWR provided considerable opportunities for collaboration among agencies, stakeholders and the public and as a result, the document has gained broad acceptance and support.

The process included a 65-member advisory committee and DWR held numerous forums throughout the state for two-way communication. DWR set up Web pages and electronic surveys and used email

Key Meetings and Decisions Exclude Public Involvement

Stakeholders assert that some state and federal agencies bypass the collaborative process on key issues. In July 2003, the Bureau of Reclamation and the Department of Water Resources (DWR) met privately in Napa with water contractors to forge, the "Napa Agreement," which would expand water exports from the Delta to Southern California. Subsequently, the Bureau and DWR released the federal Operating and Criteria Plan (OCAP), a blueprint for federal water provisions, which expands water shipments from the Delta. Environmentalists assert that it also weakens protections for endangered salmon.

In a letter to the Commission, environmentalists state: "The Bureau of Reclamation and the Department of Water Resources have consistently bypassed collaborative efforts. The July 2003 Napa Agreement was deliberately negotiated by these agencies and their largest customers without input from state or federal fisheries agencies, Sacramento Valley interests, Delta interests or the public. In addition, the Bureau has refused to discuss critical CVP contract renewals in the CALFED setting – contracts that, if properly renegotiated, could help to resolve some of the bitter disputes among California water users and environmental interests. The Bureau and DWR also refused to bring the Operations Criteria and Plan (OCAP) to CALFED until the plan was final, and included weakened protections for endangered salmon. Both the Napa Agreement and the OCAP were finalized before they were released to the public for review."

Additionally, the biological opinion of the National Marine Fisheries Service that the OCAP is based upon has been criticized by both state and federal policy-makers. Stakeholders assert that a draft opinion indicated that the plan would jeopardize endangered salmon, but the final opinion stated that the plan would cause "no jeopardy" to salmon and other endangered fish. Nineteen members of Congress called for an investigation as to whether federal appointees had played a role in the shift in the scientific opinion. As a result, environmentalists, fishing groups and the Winnemem Wintu Tribe have sued the Bureau of Reclamation and the National Marine Fisheries Service over the validity of the biological opinions the OCAP is based upon.

Sources: Barry Nelson, Natural Resources Defense Council, Tom Graff, Environmental Defense and Gary Bobker, The Bay Institute. December 14, 2004. "Reflections on the State of Bay-Delta Water Management on the 10th Anniversary of the Bay-Delta Accord. Also, Gary Hayward Slaughter Mulcahy, Emmisary and Governmental Liaison, Winnemem Wintu Tribe. September 22, 2005. Written testimony to the Commission. Congressman George Miller (D-California, 7th District). October 8, 2004. Press release. "Lawmakers Call for an Investigation into Possible Political Interference in California Water Analysis."

correspondence and teleconferencing. Meeting agendas and materials and draft copies of the water plan update were posted on the Web site and feedback was encouraged.

At the end of the process, DWR reported that "the new framework is one of the significant accomplishments of this water plan update and should serve as the cornerstone for future updates." [113]

The Stakeholder Committee is Restricted by Federal Law

BDPAC was chartered under a federal statute to serve as a stakeholder venue to provide advice and recommendations to the federal government and the State. At the outset, this dual role seemed not only functional, but efficient. When the legislation for the CBDA was being drafted, little consideration was given to whether the State should create a new and different advisory council or simply use BDPAC as its stakeholder advisory body.[114]

The California Bay-Delta Act, which created the CBDA, states that BDPAC "shall advise and make recommendations to the authority and director on issues related to the California Bay-Delta Program" and that the CBDA shall provide administrative support for BDPAC.[115]

The federal charter limits BDPAC.

The relationship between the CBDA and BDPAC has been questioned by federal officials in recent months. Federal representatives have charged that BDPAC and its subcommittees were following agendas set by the CBDA, as opposed to the federal agencies that BDPAC was created to advise. Some officials asserted that the CBDA and BDPAC had over-reached their boundaries by acting as a platform for criticizing federal regulatory actions that had been vetted through other public processes.[116] Additionally, a federal attorney asserted that procedural requirements of the Federal Advisory Committee Act (FACA) may not

BDPAC Charter, Then and Now

July 2001: "The purpose of the Committee is to provide assistance and recommendations to the Secretary of the Interior and the Governor of California through the CALFED Policy Group or its successor on implementation of the CALFED Bay-Delta Program."

July 2003: "The purpose of the Committee is to provide recommendations to the Secretary of the Interior, other participating federal agencies, the Governor of California, and the California Bay-Delta Authority on implementation of the CALFED Bay-Delta Programmatic Record of Decision."

July 2005: "The purpose of the California Bay-Delta Public Advisory Committee is to provide advice and recommendations to the Secretary of the Interior and the U.S. Department of the Interior agency heads participating in the CALFED Bay-Delta Program and as members of the California Bay-Delta Authority on implementation of the CALFED Bay-Delta Programmatic Record of Decision."

serve the needs of the State, but if not followed, would put the federal government at risk of being sued over procedural irregularities.[117] The most recent version of the BDPAC charter, signed in July 2005, clarified the purpose of BDPAC: The committee's role is to advise the federal government.[118]

Written testimony to the Commission submitted by the deputy assistant secretary for water and science for the U.S. Department of the Interior, confirms the shift in focus:

> *With the recent renewal of the charter, the BDPAC role has been clarified as providing advice and recommendations to the Secretary of the Interior on implementation of the CALFED Bay-Delta Program. This lack of clarification also created confusion as to the role of the BDPAC subcommittees whose sole purpose is to compile information, conduct research, and provide reports and recommendations back to the BDPAC to enable the BDPAC to make informed recommendations to the Secretary.*[119]

The testimony further asserted that many of the BDPAC subcommittees seemed to be doing CBDA business, rather than BDPAC business and suggested the CBDA create its own workgroups to support its needs.

With BDPAC no longer formally advising the State and with federal agencies setting the agenda, it is questionable whether BDPAC can effectively guide state agencies implementing CALFED.

BDPAC lacks an effective structure.

Official, highly-scripted BDPAC meetings are not conducive to collaboration.[120] Additionally, the nine BDPAC subcommittees have goals that overlap and often conflict. Some subcommittees have dozens of members and most meet monthly or semi-monthly. The subcommittee meetings are open to the public and subcommittee members do not have to be members of BDPAC to participate. However, it is not clear how effective the subcommittees have been in informing and influencing the CALFED process and some have clearly not lived up to their potential. For example, the environmental justice subcommittee was directed in the ROD to develop a plan to include commitments to environmental justice goals and objectives across each program area and invest staff and resources across program areas. But the environmental justice subcommittee has not been adequately funded and its ability to implement a basic work plan as outlined in the ROD was "an embarrassing failure."[121]

The sheer number of committees and the quantity of meetings makes it difficult for members of the public not sponsored by professional organizations to participate in the BDPAC process. Additionally, BDPAC members assert that the subcommittees function as single-interest forums and advocate for projects and funding in narrow areas without considering the program as a whole and the impact on projects and goals of the other subcommittees.[122]

BDPAC does not represent all stakeholders.

BDPAC members are selected by the Secretary of the Interior in consultation with the Governor. Currently the make-up includes water agencies and municipalities, environmental representatives, agricultural interests and tribal representatives. BDPAC lacks any participation from California's business community. The Bay-Delta Advisory Council, the predecessor to BDPAC, was co-chaired by the president and CEO of the Bay Area Council, a regional Northern California business organization. Yet BDPAC does not have business representation, even though Bay Area business organizations have offered to participate.[123]

Other stakeholders have simply walked away from the process after finding it unproductive. A representative from the Environmental Justice Water Coalition stated in written testimony "that the majority of environmental justice communities and stakeholders originally interested in participating through the Environmental Justice Subcommittee no longer find it a worthwhile forum."[124] Additionally, both CDBA and BDPAC lack cultural diversity in their membership – as one witness pointed out, neither entity has an African-American member.[125]

Bolster Public Involvement and Resolve Conflicts

Earlier in this report, the Commission identified the need for a strong and cohesive leadership structure to coordinate and manage CALFED implementation projects. But if CALFED is to achieve more sustainable, more efficient and more equitable decisions, the public must be more effectively involved.

In the wake of Hurricane Katrina, Californians have a renewed interest in Delta levees. The State should optimize this opportunity to engage and educate the public on Bay-Delta issues. But it should not take a catastrophe to engage Californians in what is arguably the most important issue facing the State. The State must do more to create an ongoing dialogue with its residents regarding water.

- ***The State must educate Californians on the Bay-Delta Estuary.*** State leaders must engage in a significant public outreach

campaign to educate Californians, particularly those whose homes and business lie hundreds of miles south of the Delta. The State needs to motivate and then harness the enthusiasm of residents to ensure that state and federal elected officials prioritize water and provide a united front at the Congressional level so that projects move forward.

- ***CALFED leadership must develop decision-making procedures.*** CALFED leadership must develop systemic procedures for prioritizing issues that are most critical and most contentious and find innovative ways of communicating so that the public and stakeholders can anticipate, influence and then ultimately understand administrative decisions. The State cannot afford to broker back room deals that ultimately lead to lengthy and expensive litigation and impede progress.

- ***The State must improve transparency.*** Public involvement must be a key component of major decision-making, but also must be treated as a scarce resource to be utilized on the most critical issues. The State must provide meaningful opportunities to build public awareness beyond the public meeting process, including more user-friendly avenues for two-way communication. And the State must find ways to reach out beyond identified stakeholders to include communities, civic leaders, businesses and the public.

- ***The State needs an independent advice mechanism.*** The State needs an independent entity with equitable membership among stakeholders to advise the Governor, the Legislature and the state and federal agencies involved in the CALFED program and provide a forum for stakeholder conflict resolution. The independent entity should identify priorities and develop integrated water management principles in the four major CALFED objectives – ecosystem restoration, water quality, water reliability and levees and should prioritize environmental justice in each of these areas.

- ***The State must enhance and refine the CALFED conflict resolution process.*** CALFED leadership must develop the capacities and procedures for agencies to voluntarily engage the public in conflict resolution as an alternative to unilateral decisions that may exacerbate conflicts and lead to costly litigation and regulatory battles. The State should provide incentives for CALFED agencies to participate in conflict resolution to meet timelines and performance goals, prior to bringing policy options to the administration or the Legislature. The State must facilitate a means for stakeholders to be included in resolving conflicts

between agencies. And the CALFED process must be the first and best option for conflict resolution.

Recommendation 4: The State must provide more meaningful opportunities for the public and stakeholders to participate in the CALFED process to raise awareness, increase transparency, reduce conflicts and provide accountability. The State should:

- ***Build public awareness.*** The State should utilize its museums and universities, as well as non-profit organizations and the media to engage and educate all Californians on the critical role of the Delta in state water management. Additionally, the State should develop a name that is more descriptive of the program's importance.

- ***Provide more meaningful public involvement in CALFED.*** The State should establish protocols that provide meaningful opportunities for public scrutiny of substantive issues. The State must provide easy access to critical information and an effective means of communication to ensure that the public is being heard.
  - ✓ ***Regional meetings and local forums.*** CALFED leaders must look beyond Sacramento by holding regional meetings and local forums to understand and incorporate regional concerns that impact Delta decisions.
  - ✓ ***Electronic communication.*** To ensure public input, the State should take full advantage of communication technologies to create an ongoing dialogue including interactive use of the Internet and electronic communication.

- ***Establish a state advisory committee.*** In collaboration with federal CALFED partners, the Legislature should establish a committee under state law to advise and make recommendations to the Governor, the Legislature, the U.S. Interior Secretary, and the implementing agencies. The committee should replace the federally chartered Bay-Delta Public Advisory Committee.
  - ✓ Members should include stakeholders representing environmentalists, agricultural and urban water users, tribes, rural counties, environmental justice representatives, the business community and regional representatives.
  - ✓ The state advisory committee should reconstitute the nine BDPAC subcommittees into regional subcommittees that address a range of issues in the watershed.

- ***Develop a process and the capacity for conflict resolution among stakeholders.*** Public involvement in conflict resolution means

resolving disputes among stakeholders and interest groups that prevent the State from moving forward.

- ✓ CALFED officials should tap a subset of the state advisory committee to provide conflict resolution.

Legislative Role: Policy-makers need expert guidance to oversee CALFED.

Everything about CALFED is complicated: the science, the engineering, the legal issues, the politics, the funding mechanisms. And everything about CALFED is overshadowed by decades of water wars: in the courts, in the Legislature, in Congress. In short, CALFED is burdened by a lack of trust and plenty of opportunities for misunderstanding and manipulation.

One of the many functions expected of the CBDA was to provide expert and public oversight. As described previously, a board comprised mostly of government officials cannot oversee themselves. It certainly cannot provide the independent review that the public and policy-makers need to maintain confidence in CALFED. In addition, by requiring the interagency coordination to be done in public, much of the cooperative problem-solving has evaporated. Management can provide internal oversight.

But the public and policy-makers need a mechanism that can provide expert and independent review of the program – to prevent progress from stalling and to make sure that the program stays faithful to all of the shared goals. Several strategies could provide policy-makers with the expert guidance they need to bolster oversight and create incentives for progress.

Form a joint select committee on CALFED. A joint Senate Assembly select committee – staffed with experts on collaborative approaches to ecological management – could provide the Legislature with the knowledge and guidance necessary to monitor progress and inform legislative deliberations.

Appoint an inspector general. An inspector general, reporting both to the public and policy-makers and empowered to monitor and review CALFED activities – including the internal operations of state agencies – could provide the information needed to improve progress and bolster accountability. The State also could explore options to appoint a joint state-federal inspector general to monitor state and federal efforts to meet the goals of CALFED.

Establish an oversight and advisory body. An expert advisory body that reports to the public and policy-makers could provide the ongoing guidance and oversight needed to ensure state resources are appropriately deployed to meet the goals of CALFED.

Each of these strategies could enhance oversight, augment public accountability and create incentives for progress.

Recommendation: The Legislature should establish an independent oversight body to provide expert guidance to policy-makers on what is working, what is not and where changes are necessary. The oversight body should:

- ***Find facts.*** Policy-makers need clear, factual information upon which to base funding decisions, improve accountability and guide statutory changes.
- ***Convene hearings.*** Through public discussions, the oversight committee can inform the public and policy-makers on the degree of progress and strategies to enhance progress.
- ***Recommend legislative changes.*** Through annual reports, the oversight body should recommend legislative and other actions to support improved outcomes.

Conclusion

Many of the challenges facing CALFED confront other public initiatives. Public programs in public safety, health and human services and education are burdened with differences over ideology and values, poorly understood problems and few proven solutions. It is difficult to find an important task facing government that does not involve multiple, federal, state and local agencies – each with a different tool and none with enough resources.

To their credit, the CALFED's creators took on these issues directly – crafting solutions as far they could and then trying to institutionalize that progress in a governance structure and the Record of Decision. In this regard, CALFED confronts the danger of the pioneer, pushed into the wilderness and forced to resolve disputes, develop scientific understanding, and coordinate intergovernmental efforts to address the causes of intractable problems.

Both the ROD and the governance structure could be improved. And in this review the Commission identified four fundamental improvements to the governance aspects of the program.

1. ***Good governance is predicated on specific goals and a clear mandate.*** Both the Governor and the Legislature have obligations to establish policy. And when policies challenge the status quo, implementing agencies need the mandate to make changes. The mandate and direction developed in the early days of CALFED needs to be fortified, renewed and refined.

2. ***The Governor is responsible for the executive branch.*** Structural and procedural efforts to insulate a program from the legitimacy of the elected chief executive are ill-advised. Future governors may not embrace CALFED, but they should do so at their own peril. In turn, CALFED cannot succeed without the Governor's authority to broker deals, garner public support and direct reluctant bureaucracies to cooperate.

3. ***Public agencies need to be performance based.*** CALFED's implementing agencies should put in place tools that are increasingly common to improve the performance of public agencies. Those tools are fully compatible with the science-based adaptive management

techniques that will be necessary to find new solutions to old problems.

4. ***The public needs to be meaningfully involved.*** Engaging the public is difficult and time consuming. But it does improve decision-making and it is necessary if CALFED is to resolve disputes among stakeholders that prevent progress by government agencies.

In considering the reforms to governance, it might be helpful for participants and policy-makers to be focused on outcomes the way that the public officials responsible for the estuary should be. In the course of this review, the Commission distilled what participants said they wanted the governance system to accomplish. Those insights are provided in the box on the following page.

Some elements of organizational design will support those outcomes; some will impede them. No organizational design will ensure them.

For all of the testimony about legal mechanisms and accountability tools, the issue of leadership will be the most important factor in the success or failure of efforts to better manage the Bay-Delta estuary. And the most important tool of a good leader is a personal relationship – with someone in the other government, or with a stakeholder group, or in the Legislature. As one of the CALFED pioneers told the Commission, when the conflicts pull sides apart, the only way to build a bridge is to have a relationship on the other side.

Desired Expectations of a Governance System

The governance structure will be fashioned right when it contributes to these expectations for CALFED:

- ***Stronger state/federal relationship***. The state and federal relationship has been one of those most challenging aspects of CALFED, dating back to before there was a CALFED. The early efforts focused on coordinating actions to thwart regulatory stalemates; latter day efforts have focused on maintaining a degree of commitment and investment needed to solve problems over the long-term. There are both individual and institutional aspects of these relationships. Institutional solutions cannot make up for individual weaknesses, but the partnership might be strengthened by better aligning legal, regulatory, operational and fiscal incentives and sanctions to encourage state and federal agencies to work together. Over the long-term, partnerships are sustained and strengthened because they add value – principally by allowing the partners to accomplish something that they cannot by themselves.
- ***Stronger legislative/congressional support.*** Early discussions about CALFED governance focused on the need to bridge the federal and state executive branches and by implication, to provide continuity as administrations changed. Experience has revealed the importance of strong relationships between CALFED and policy-makers in Congress and the Legislature. The testimony suggests that this relationship should be predicated on a strong "mandate" for what will be pursued and how it will be pursued. To craft that mandate, policy-makers must affirmatively respond to major problems – existing or anticipated – with a definitive policy solution. That approach allows the relationship between policy-makers and administrators to focus on progress toward specific goals.
- ***Growing consensus among stakeholders.*** A common hope for CALFED is that it will reduce conflicts that result in legal action or significant losses to one side. An emerging recognition is that the ROD represents more of a cease-fire than an actual peace treaty. Some participants believe the water wars will return when CALFED cannot deliver new solutions to persistent problems. Regardless of whether CALFED is grounded in collaborative decision-making, many participants see the potential to cooperatively solve fundamental policy differences as a reason to strengthen CALFED.
- ***Quicker and better resolution of problems and conflicts.*** While some participants believe that CALFED has been hobbled by a consensus that is only an inch deep, most participants recognize that trying to meet the broad objectives will present a stream of predictable and unpredictable conflicts. For CALFED to "add value" it must consistently resolve those conflicts in ways that are quicker and more satisfying than alternative venues, including the courts and the Legislature.
- ***Better overall solutions.*** The ultimate goal must be more than the absence of conflict, but CALFED has not yet detailed a vision for how everyone really gets better together. Through adaptive management and close coordination of efforts, CALFED has the potential to develop cost-effective solutions that can only be achieved by the agencies working together and sharing resources, regulatory tools and expertise to achieve commonly held objectives.
- ***Better understanding of progress and outcomes.*** Part of the debate is whether CALFED has made progress, and in particular, whether that progress is "balanced" among the different objectives. Some officials believe the current controversy could be eased by better articulating the progress that has been made. But others assert that specific performance measures cannot be adopted until CALFED resolves more specifically how it will achieve broad objectives.
- ***A willingness to pay.*** The CALFED program must quickly evolve from a place where agencies, stakeholders and participants get "free money" to advance their agenda, to a place where they get the best return on their investment. This evolution will require resolving key policy decisions concerning current liabilities and future benefits.
- ***Greater public support.*** The general public knows little about where tap water comes from, the environmental and social tradeoffs that are made, the challenges ahead and the investments that need to be made. In many instances, greater public involvement has lead to better public decisions – an influence the Delta needs now.

Appendices & Notes

- ✓ ***Governor's Letter Requesting a Review of CALFED***
- ✓ ***Public Hearing Witnesses***
- ✓ ***Written Comments Submitted***
- ✓ ***Individuals Interviewed***
- ✓ ***Notes***

Appendix A

Governor's Letter Requesting a Commission Review of CALFED

GOVERNOR ARNOLD SCHWARZENEGGER

June 22, 2005

Little Hoover Commission
925 L Street, Suite 805
Sacramento, California 95814

Dear Chairman Alpert and Members of the Commission,

The California Bay-Delta is a tremendous ecological and economical asset that provides a significant portion of California's water supply as well as valuable habitat for scores of bird and fish species. It also represents a significant management challenge, balancing the need for habitat preservation and environmental protection with those for water supply and conveyance. Due to this challenge, the State of California, the federal government and various stakeholders joined together in 1994 to begin the creation of the CALFED Bay-Delta program.

While the CALFED Bay-Delta program has achieved many successes, it has struggled to meet the demands of the Record of Decision that established the original framework for the program. The situation going forward is further complicated by a financial model that is no longer sustainable given the condition of the State's General Fund. To ensure the long-term financial stability of the CALFED Bay-Delta program, I have instructed the Secretary of Resources to work with the Secretary of the California Environmental Protection Agency, the Secretary of the Department of Food and Agriculture, the Chairperson of the California Bay-Delta Authority and stakeholders to develop a strategy to stabilize public and private sector investment.

To address the public policy challenges facing this important program, I have called for an independent review of the CALFED Bay-Delta program. Given the Little Hoover Commission's history of providing valuable recommendations to improve the credibility and performance of government, as part of this review I would like to ask the Commission to undertake an examination of governance issues related to the CALFED Bay-Delta program and the proper role of the California Bay-Delta Authority and to prepare a report of findings and recommendations to improve the performance, and ultimately the public trust, in this essential program.

Sincerely,

Arnold Schwarzenegger

STATE CAPITOL • SACRAMENTO, CALIFORNIA 95814 • (916) 445-2841

Appendix B

Little Hoover Commission Public Hearing Witnesses

Witnesses Appearing at Little Hoover Commission Public Hearing on CALFED Bay-Delta Authority History and Purpose, August 25, 2005

Bruce Babbitt, former Secretary
U.S. Department of the Interior

Ryan Broddrick, Director
California Department of Fish and Game

Gary H. Hunt, Chair
California Bay-Delta Authority

Mary Nichols, former Secretary
California Resources Agency

Roger K. Patterson
former Regional Director
U.S. Bureau of Reclamation

Jason Peltier, Deputy Assistant Secretary
for Water and Science
U.S. Department of the Interior

Bennett Raley, former Assistant Secretary
for Water and Science
U.S. Department of the Interior

Lester A. Snow, Director
California Department of Water Resources

Steve P. Thompson, Manager
California-Nevada Operations Office
U.S. Fish and Wildlife Service

Douglas P. Wheeler, former Secretary
California Resources Agency

Pete Wilson, former Governor
State of California

Witnesses Appearing at Little Hoover Commission Public Hearing on CALFED, September 22, 2005

Ara Azhderian, Water Policy Administrator
San Luis and Delta-Mendota Water Authority

Walter J. Bishop, General Manager
Contra Costa Water District

Gary Bobker, Program Director
The Bay Institute

David A. Breninger, General Manager
Placer County Water Agency

Zeke Grader, Executive Director
Pacific Coast Federation of Fishermen's Associations

David J. Guy, Executive Director
Northern California Water Association

Martha Guzman, Legislative Advocate
California Rural Legal Assistance Foundation

Stephen K. Hall, Executive Director
Association of California Water Agencies

Randele Kanouse
Special Assistant to the General Manager
East Bay Municipal Utility District

Cynthia Koehler, Public Interest Attorney and Environmental Advocate

Gary Hayward Slaughter Mulcahy
Emissary and Governmental Liaison
Winnemem Wintu Tribe

Timothy H. Quinn, Vice President
State Water Project Resources
Metropolitan Water District of Southern California

Witnesses Appearing at Little Hoover Commission Public Hearing on CALFED, October 27, 2005

Michael F. Burke, Associate Director
Chesapeake Bay Program Office
U.S. Environmental Protection Agency, Region III

Mike Chrisman, Secretary
California Resources Agency

Jody Freeman, Professor and Director
Environmental Law Program
Harvard Law School

Thomas J. Graff
California Regional Director
Environmental Defense

Carl Hasty, Deputy Executive Director
Tahoe Regional Planning Agency

Gary Livaich, Partner
Desmond, Nolan, Livaich and Cunningham

Col. (ret.) Greg May, Executive Director
South Florida Ecosystem Restoration Task Force

Jeffrey F. Mount, Professor and Director
Center for Integrated Watershed Science and Management
University of California, Davis

Thomas M. Zuckerman, Co-Counsel
Central Delta Water Agency

Appendix C

Written Comments Submitted

Individuals and Organizations who submitted General Written Comments or Testimony to the Commission

Linda Best, Executive Director
Contra Costa Council

Gary Bobker, Program Director
The Bay Institute

Joseph E. Bodovitz, first Executive Director
California Coastal Commission

Barbara Bradley
Ph.D. Student in Water Policy
Department of Planning, Policy and Design
School of Social Ecology
University of California, Irvine

Deberah Bringelson, President and CEO
Samceda

Butte Environmental Council

California League of Conservation Voters

California Sportfishing Protection Alliance

Thomas Cannon

James P. Chatigny, Executive Director
Mountain Counties Water Resources Association

Henry Clark, Acting Co-Chair
Environmental Justice Subcommittee
Bay-Delta Public Advisory Committee

Jennifer Clary, Water Policy Analyst
Clean Water Action

Jim Earp
California Alliance for Jobs

Environmental Working Group

Friends of the River

John Gibler, Policy Analyst
Public Citizen

Sierra Club

Peter H. Gleick, President
Pacific Institute

Thomas J. Graff
California Regional Director
Environmental Defense

Helen Ingram
Warmington Endowed Chair of Social Ecology
University of California, Irvine

Bruce Kern, President and CEO
Economic Development Alliance for Business

Kathy Mannion
Director of Water and Power
Regional Council of Rural Counties

Mike McGowan, Chair
Delta Protection Commission

David Miller, President
California Association of Professional Scientists

Johnnie N. Moore, Lead Scientist
California Bay-Delta Authority

Nathan Nayman, Executive Director
Committee on Jobs

Senator John A. Nejedly, Retired

Barry Nelson, Senior Policy Analyst
Natural Resources Defense Council

Northern California Council/Federation of Fly Fishers

Pacific Coast Federation of Fishermen's Associations

Bill Pauli, President
California Farm Bureau Federation

Planning and Conservation League

Southern California Watershed Alliance

Frances Spivy-Weber
Executive Director for Policy
Mono Lake Committee

Sue Stack

Laura Stuchinsky
Director of Transportation and Land Use
Silicon Valley Leadership Group

Jim Wunderman, President and CEO
Bay Area Council

Individuals who submitted Written Comments to the Commission via its Electronic Questionnaire

Pat Acosta, Director
Water Replenishment District of Southern California

Joan Anderson Dym, Executive Director
Southern California Water Committee

Jeannie Blakeslee
Staff Environmental Scientist
Department of Conservation
Division of Land Resource Protection

Gary Bobker, Program Director
The Bay Institute

Dave and Allison Boucher
President and Treasurer
Friends of The Tuolumne, Inc.

Brian Burns, Budget Analyst
California Bay-Delta Authority

Robert Campbell, Principal Project Manager
Parsons Corporation

Thomas Cannon

Olene Chard
Associate Governmental Program Analyst
(Retired Annuitant)
Communication Support
California Bay-Delta Authority

Sarah Connick

Gilbert Cosio, Vice President
MBK Engineers

Steven Culberson
Staff Environmental Scientist
California Bay-Delta Authority

Paula Daniels, Member
Bay-Delta Authority

Dan Efseaff, Restoration Ecologist
River Partners

Federal CALFED Agencies (ClubFED)

Greg Gartrell
Assistant General Manager
Contra Costa Water District

Sergio Guillen, Assistant Deputy Director
California Bay-Delta Authority

J. Michael Harty, Staff Mediator
Center for Collaborative Policy
California State University, Sacramento

Lisa Holm, Manager
CALFED Water Quality Program
California Bay-Delta Authority

Anne Horton, Office Technician
Department of Water Resources

Randele Kanouse
Special Assistant to the General Manager
East Bay Municipal Utility District

Jack Keller

Kenneth D. Landau
Assistant Executive Officer
Central Valley Region
Regional Water Quality Control Board

J. Robert C. Leavitt
Senior Environmental Research Scientist
Integrated Pest Control Branch
California Department of Food and Agriculture

Barbara J. Leidigh, Staff Counsel
State Water Resources Control Board

Samuel N. Luoma
U.S. Geological Survey

Steve Macaulay, Executive Director
California Urban Water Agencies

Roger Mann, Consultant
RMECON

Michael Mantell, Attorney
Resources Law Group, LLP

Ken McGhee
Environmental Justice Coordinator
California Bay-Delta Authority

Mindy McIntyre, Water Policy Specialist
Planning and Conservation League

Marie McLean
Legal and Economic Researcher
State Water Project
California Department of Water Resources

Robert Meacher, Vice Chair
Plumas County Board of Supervisors

Dave Means, Assistant Executive Director
Wildlife Conservation Board

Jonas Minton, Water Policy Advisor
Planning and Conservation League

Laura King Moon
Assistant General Manager
State Water Contractors

Jeffrey F. Mount, Professor and Director
Center for Integrated Watershed Science and Management
University of California, Davis

Daniel G. Nelson, Executive Director
San Luis and Delta-Mendota Water Authority

David Okita, General Manager
Solano County Water Agency

Bill Pauli, President
California Farm Bureau Federation

Mark Roberson
Staff Consultant in Water Management
California Bay-Delta Authority

Stephen S. Roberts, Principal Engineer
Surface Storage Investigations Program
California Department of Water Resources

Mary Schroeder, District Manager
Western Shasta Resource Conservation District

Steven Shaffer, Director
Office of Agriculture and Environmental Stewardship
California Department of Food and Agriculture

Fraser Shilling, Research Scientist
Department of Environmental Science and Policy
University of California, Davis

Frances Spivy-Weber
Executive Director for Policy
Mono Lake Committee

Mark Stadler
Principal Water Resources Specialist
San Diego County Water Authority

Robert Twiss, Professor Emeritus
Environmental Planning
University of California, Berkeley

Walter Wadlow, Chief Operating Officer
Santa Clara Valley Water District

Douglas I. Wallace
Environmental Affairs Officer
East Bay Municipal Utility District

Walter Ward, Assistant General Manager
Modesto Irrigation District

Thomas M. Zuckerman
Member Representing the Central Delta Water Agency
Bay-Delta Pubic Advisory Committee

Appendix D

Individuals Interviewed by the Little Hoover Commission

Patricia Acosta, Member
California Bay-Delta Authority

Richard Amidon, Chief of Staff to the Speaker of the New Hampshire Assembly

Arthur G. Baggett, Jr., Board Member
State Water Resources Control Board

Eugene Bardach, Professor
University of California, Berkeley

Gary Bobker, Program Director
The Bay Institute

Joseph E. Bodovitz, first Executive Director
California Coastal Commission

David Booher, former Executive Director
California Council for Environmental and Economic Balance

R. Gregory Bourne, Staff Mediator
Center for Collaborative Policy
California State University, Sacramento

Alf Brandt, Consultant
Committee on Water, Parks and Wildlife
California State Assembly

Rick Breitenback, Deputy Director
Internal Affairs and Special Projects
California Bay-Delta Authority

David A. Breninger, General Manager
Placer County Water Agency

Marcia Brockbank, Program Manager
The San Francisco Estuary Project

Michael Burke, Associate Director
Chesapeake Bay Coordinating Council
U.S. Environmental Protection Agency

Diane Buzzard, CALFED Program Manager
U.S. Bureau of Reclamation

Margaret Caldwell, Director
Environmental and Natural Resources Law
Stanford University

Celeste Cantú, Executive Director
State Water Resources Control Board

Mike Chrisman, Secretary
California Resources Agency

Carol Collier, Executive Director
Delaware River Basin Commission

Sarah Connick, Associate Director
Sustainable Conservation

Keith Coolidge
Deputy Director for Communications
California Bay-Delta Authority

Paula A. Daniels, Member
California Bay-Delta Authority

Barbara L. Evoy, Chief
Division of Financial Assistance
State Water Resources Control Board

Linda Fiack, Executive Director
Delta Protection Commission

Linda N. Finley
Civil Works Program Manager and Chief
Civil Works Branch, Sacramento District
U.S. Army Corps of Engineers

Jody Freeman, Professor
Harvard Law School

Ed Gee, Assistant Regional Solicitor
U.S. Department of the Interior

Barry Gold, former Director
Grand Canyon Monitoring Research Station

Janet Goldsmith, Legal Counsel to Placer County Water Agency
Cronick, Moskovitz, Tiedemann and Girard

Joseph P. Grindstaff, Director
California Bay-Delta Authority

Lance Gunderson, Chair
Department of Environmental Studies
Emory University

Tom Hagler, Regional Counsel
U.S. Environmental Protection Agency

Stephen K. Hall, Executive Director
Association of California Water Agencies

Tom Hannigan, former Director
California Department of Water Resources

Dave Harlow, CALFED Coordinator
Ecological Services, Sacramento Office
U.S. Fish and Wildlife Services

J. Michael Harty, Staff Mediator
Center for Collaborative Policy
California State University, Sacramento

Carl Hasty, Deputy Director
Tahoe Regional Planning Agency

Marc Holmes, Member
California Bay-Delta Authority

Gary H. Hunt, Chair
California Bay-Delta Authority

Helen Ingram
Warmington Endowed Chair of Social Ecology
University of California, Irvine

Judith Innes, Director
Institute of Urban and Regional Development

Diana F. Jacobs
Deputy Director and Science Advisor
California Department of Fish and Game

Beth Jines, Acting Deputy Director
Office of Public Affairs
State Water Resources Control Board

Steve Johnson
California Strategic Initiatives
The California Nature Conservancy

Patrick Johnston, former Senator
Member, California Bay-Delta Authority

Bill Jones, Member
California Bay-Delta Authority

Randy Kanouse
Special Assistant to the General Manager
East Bay Municipal Utility District

Susan Kennedy, Member
California Bay-Delta Authority

Sheila Kuehl, Senator and Chair
Committee on Natural Resources and Water
California State Senate

Kai Lee
Rosenburg Professor of Environmental Studies
Williams College

Yating Liang, Policy and Finance
California Bay-Delta Authority

Andy Lipkis, Founder and President
TreePeople

Gary Livaich, Partner
Desmond, Nolan, Livaich and Cunningham

Michael J. Machado, Senator and Chair
Subcommittee on Delta Resources
Committee on Natural Resources and Water
California State Senate

Roger Mann, Consultant
RMEcon

Michael Mantell, Attorney
Resources Law Group, LLP

Bob Margett, Senator and Vice Chair
Committee on Natural Resources and Water
California State Senate

Richard Margoluis, Co-Director
Foundations of Success

Wendy Halverson Martin
Chief Deputy Director
California Bay-Delta Authority

Gregory May, Executive Director
South Florida Ecosystem Restoration Project

Robert Meacher, Co-chair
Watershed Program
Bay-Delta Public Advisory Committee

Al Montna, Member
California Bay-Delta Authority

Laura King Moon
Assistant General Manager
State Water Contractors

Johnnie N. Moore, Lead Scientist
California Bay-Delta Authority

Brandon C. Muncy, Chief
Water Resources Branch
Sacramento District
U.S. Army Corps of Engineers

James D. Nichols, Wildlife Biologist
Patuxent Wildlife Research Center
U.S. Geological Survey

Mary Nichols, Director
Institute of the Environment

Dennis O'Connor, Principal Consultant
Committee on Natural Resources and Water
California State Senate

Allan Oto, Special Project Officer
Mid-Pacific Region
Bureau of Reclamation
U.S. Department of the Interior

Jason Peltier, Deputy Assistant Secretary for Water and Science
U.S. Department of the Interior

Sylvia Quast, Attorney
Resources Law Group, LLP

Timothy H. Quinn, Vice President
State Water Project Resources
Metropolitan Water District of Southern California

Bennett Raley, former Assistant Secretary
U.S. Department of the Interior

Tim Ramirez, Member
Environmental Restoration Program
California Bay-Delta Authority

Elizabeth A. Rieke, former Assistant Secretary for Water and Science
Department of the Interior

Mark Roberson, Staff Consultant in Water Management
California Bay-Delta Authority

Pauline Roccucci, Chair
Placer County Water Agency

Kirk C. Rodgers, Regional Director
Mid Pacific Region, Bureau of Reclamation
U.S. Department of the Interior

Clifford W. Schultz, Attorney At Law
Kronick, Moskovitz, Tiedemann & Girard

Karen Schwinn, Associate Director
Water Division, Region 9
U.S. Environmental Protection Agency

Katriona Shea, Assistant Professor
Pennsylvania State University

Fraser Shilling, Research Scientist
Department of Environmental Science & Policy
University of California, Davis

Alan Short, General Manager
Modesto Irrigation District

John Singlaub, Executive Director
Tahoe Regional Planning Agency

Dan Skopec, Deputy Cabinet Secretary
Office of Governor Schwarzenegger

Lester Snow, Director
California Department of Water Resources

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Executive Director for Policy
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Chesapeake Bay Commission

Alexis Strauss, Region 9 Director
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Terrance Tamminen, Cabinet Secretary
Office of Governor Schwarzenegger

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John Watts, Environmental Counsel
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Daniel Wheeler, Member
California Bay-Delta Authority

Wayne White, State Supervisor
Ecological Services, Sacramento Office
U.S. Fish and Wildlife Services

Kate Williams, Budget Director
California Bay-Delta Authority

Lois Wolk, Assemblymember and Chair
Committee on Water, Parks and Wildlife
California State Assembly

Patrick Wright, former Executive Director
California Bay-Delta Authority

Notes

1. The brown pelican and red-legged frog are listed as endangered by the federal government. The silver legless lizard is not endangered, but listed as a "species of special concern," by the California Department of Fish and Game.
2. CALFED Bay-Delta Program. August 28, 2000. Programmatic Record of Decision, Volume 1, p.1. Sacramento, CA.
3. John Muir. 1911. "My First Summer in the Sierra." Boston. Houghton Mifflin. Quote is available at the Sierra Club Web site: http://www.sierraclub.org/john_muir_exhibit/frameindex.html?http://www.sierraclub.org/john_muir_exhibit/writings/favorite_quotations.htm. Accessed November 7, 2005.
4. Association of Bay Area Governments. 1992. "San Francisco Estuary Project: State of the Estuary Report, 1992." Available at the ABAG Web site: http://www.abag.ca.gov/bayarea/sfep/reports/soe.htm. Access November 7, 2005.
5. Association of Bay Area Governments. 2002. "San Francisco Estuary Project: Aquatic Organisms and Wildlife." Available at the ABAG Web site: http://www.abag.ca.gov/bayarea/sfep/trends/soe.htm. Accessed November 7, 2005.
6. "San Francisco Estuary Project: State of the Estuary Report, 1992." See endnote 4.
7. "San Francisco Estuary Project: State of the Estuary Report, 1992." See endnote 4.
8. Gordy Slack. January-March 2003. "Between River and Bay: the Delta's Big Break." Available at the Bay Nature Web site: http://www.baynature.com/2003janmarch/delta_2003janmarch.html Accessed November 7, 2005.
9. Melissa O'Meara. 1998. "1848-1850: A Timeline." The Sacramento Bee. Available at the California Gold Rush Resources Web site: http://www.calgoldrush.com/resources/gr_timeline.html. Accessed November 7, 2005.
10. According to the Pasadena Water & Power Web site: http://www.ci.pasadena.ca.us/waterandpower/water_faqs.asp, the Rose Bowl can hold 164.5 million gallons of water. Accessed November 7, 2005.
11. *Woodruff vs. North Bloomfield Gravel Mining Co.,* 753, F. (9th Cir. 1884).
12. *Woodruff vs. North Bloomfield Gravel Mining Co.* See endnote 11.
13. "San Francisco Estuary Project: State of the Estuary Report, 1992." See endnote 4.
14. Water Education Foundation. 2003. "Layperson's Guide to the Delta." Sacramento, CA. Page 4.
15. John Krist. September 10, 2005. "Levees also a California Threat." The Ventura County Star.
16. Stuart A. Rojstaczer, Rebecca E. Hamon, Steven J. Deverel, and Christine A. Massey. 1991. "Evaluation of Selected Data to Assess the Causes of Subsidence in the Sacramento-San Joaquin Delta, California." U.S. Geological Survey, Open-File Report 910193. Sacramento, CA. Page 1.
17. "San Francisco Estuary Project: State of the Estuary Report, 1992." See endnote 4.
18. Gary Bobker, Program Director, The Bay Institute. San Francisco, CA. September 22, 2005. Written testimony to the Commission.
19. "Layperson's Guide to the Delta." Page 9. See endnote 14.

20. "San Francisco Estuary Project: State of the Estuary Report, 1992." See endnote 4.

21. Water Education Foundation. 2003. "Layperson's Guide to California Water." Page 9. Sacramento, CA.

22. Department of Water Resources. 2005. "State Water Project: Overview." Sacramento, CA. http://www.publicaffairs.water.ca.gov/swp/cvp.cfm. Accessed November 7, 2005.

23. Department of Water Resources. See endnote 21. Page 12.

24. The Environmental Justice Coalition for Water. 2005. "Thirst for Justice: A People's Blue Print for California Water." Oakland, CA. Available at the EJCW Web site: http://www.ejcw.org/our_work/blueprint.html. Accessed November 7, 2005

25. The Environmental Justice Coalition for Water. See endnote 24. Page 8.

26. Department of Water Resources. Drought information. Available at the DWR Web site: http://watersupplyconditions.water.ca.gov/background.cfm.

27. California Data Exchange Center. Updated July 8, 2005. Historical Sacramento and San Joaquin Valley Water Year Index. Available: http://cdec.water.ca.gov/cgi-progs/iodir/WSIHIST.

28. "Save the Fish." January 7, 1995. The Economist.

29. Michael Lewis. December 16, 2003. "New Rules for Delta Water, Wilson: 'Ill-Considered Federal Standards Would Cost Jobs." *Modesto Bee*, A1.

30. David Nawi and Alf W. Brandt. June 5, 2005. "CALFED Bay-Delta Program: The Challenges of Collaboration." On file.

31. David Nawi and Alf. W. Brandt. See endnote 30.

32. For more information on those standards, see the "Water Quality Control Plan for the San Francisco Bay/Sacramento San Joaquin Delta Estuary" adopted by the State Water Resources Control Board on May 22, 1995. http://www.waterrights.ca.gov/baydelta/html/1995_Plan.htm Site accessed October 3, 2005.

33. Tim Ramirez, Environmental Restoration Program, California-Bay Delta Authority. August 17, 2005. Interview with Commission staff.

34. California Bay-Delta Authority. "About CALFED: Basis for Cooperation." http://www.calwater.ca.gov/AboutCalfed/AboutCalfedBasisofCooperation.shtml. Accessed September 14, 2005.

35. Yating Liang. California Bay-Delta Authority. July 29, 2005. Written Communication. On file.

36. California Bay-Delta Authority. December 15, 1995. "The San Francisco Bay-Delta Agreement – Attachment C: Principles for Implementation of Category III." http://calwater.ca.gov/Archives/GeneralArchive/SanFranciscoBayDeltaAgreementAttachmentC.shtml. Accessed September 14, 2005.

37. Gregory K. Wilkinson, Chair, Category III Institutional Structure Workgroup. January 26, 1995. "Institutional Alternatives for Long-Term Implementation of Category III Measures." On file.

38. California Bay-Delta Authority. "Bay-Delta Advisory Council Mission and Purpose." http://calwater.ca.gov/Archives/GeneralArchive/CBDACMissionPurpose.shtml. Accessed September 15, 2005.

39. Harrison C. Dunning, The Bay Institute and Member, Bay-Delta Advisory Council and Co-Chair, CBDAC Governance Work Group. December 19, 2000. "Previous

Administrative Efforts to Develop a Governance Structure." Testimony to the Senate Agriculture and Water Resources Committee and the Assembly Water Parks and Wildlife Committee, Informational Hearing on CALFED Governance.

40. For more information about the Policy Group, see http://www.calwater.ca.gov/AboutCalfed/PolicyGroupMembers.shtml. Accessed September 15, 2005.

41. Harrison C. Dunning. See endnote 39.

42. Cynthia Koehler, Save San Francisco Bay Association, on behalf of the Environmental Water Caucus. March 3, 1998. "Letter to Lester Snow Regarding the CBDAC Work Group Assurances Proposal." On file.

43. Elizabeth Rieke, Director, Natural Resources Law Center, University of Colorado School of Law. April 13, 1998. "Some Institutional Options for CALFED Program Implementation." On file.

44. Elizabeth Rieke. See endnote 43. Also, Natural Resources Law Center, University of Colorado School of Law. February 3, 1998. "Design of a New CALFED Environmental Restoration Implementation Organization: Preliminary Considerations. On file.

45. Elizabeth Rieke. See endnote 43. Refers to another document. Natural Resources Law Center, University of Colorado School of Law. March 16, 1998. "Organizational Issues Associated with the CALFED Program."

46. Elizabeth Rieke. See endnote 43.

47. Cliff Schulz. March 3, 1998. "Ecosystem Entity White Paper." Cynthia Koehler. See endnote 42. David Fullerton. July 1, 1998. "White Paper on the Implications of the Conservation Strategy for Ecosystem Program Institutional Arrangements. These documents were attachments to the CBDAC Assurances Work Group Agenda, July 7, 1998. On file.

48. Alf W. Brandt, Assistant Regional Solicitor, U.S. Department of the Interior. September 14, 1998. "Memo to Club FED Management Regarding a "New Entity" for Delta Ecosystem Restoration. On file. Also, Tom Hagler, U.S. Environmental Protection Agency. September 6, 1998. "Memo to Club FED Management Regarding a "New Entity" for CALFED – Issues and Proposal." Draft. On file.

49. Harrison C. Dunning. See endnote 39.

50. Steven R. Ritchie, Acting Executive Director, CALFED Bay-Delta Program. December 10, 1999. "Memo to Policy Group Regarding Long-Term Governance." On file. Also, CALFED Bay-Delta Program. February 25, 2000. "CALFED Revised Draft Implementation Plan." Section 4.0 CALFED Governance Plan. On file. Also, CALFED Bay-Delta Program. July 2000. "CALFED Bay-Delta Program EIR/EIS Implementation Plan." Section 4.0 Governance Plan.

51. CALFED Bay-Delta Program. Revised Draft Implementation Plan. Section 4.0 CALFED Governance Plan. February 25, 2005.

52. Dennis O'Connor, Consultant, Senate Committee on Natural Resources. September 14, 2005. Interview with Commission staff. Also Alf Brandt, Consultant, Assembly Water, Parks & Wildlife. August 31, 2005. Interview with Commission staff.

53. AB 1839 Machado. February 3, 2000. Amended in Senate. August 7, 2000.

54. AB 1839 Machado. February 3, 2000. Amended in Senate. August 21, 2000. Also, Brent Walthall, Consultant, Senate Committee on Agriculture and Water Resources. August 21, 2000. AB 1839 Bill Analysis.

55. SB 2042. Johnston. As amended in Assembly August 31, 2000. Also, SB 2042 Johnston. Bill Analysis. August 31, 2000.

56. SB 2042. Johnston. Bill Analysis. August 31, 2000. Also, SB 2042 Johnston. Complete Bill History and Vote Information. Dennis O'Connor, Consultant, Senate Committee on Natural Resources. September 14, 2005. Interview with Commission staff. Also Alf Brandt, Principal Consultant, Assembly Water, Parks & Wildlife. August 31, 2005. Interview with Commission staff.

57. SB 1653. Costa. September 23, 2002.

58. Dennis O'Connor, Consultant, Senate Committee on Natural Resources. September 14, 2005. Interview with Commission staff.

59. Dennis O'Connor, Consultant, Senate Committee on Natural Resources. September 14, 2005. Interview with Commission staff. Kate Williams, Assistant Director Policy and Finance, California Bay-Delta Authority. September 15, 2005. Interview with Commission staff.

60. AB 2683. Canciamilla. 2002. Among other technical changes, the law limited Budget Change Proposal reviews to the executive director of the CBDA and not the full board.

61. John Watts, Office of U.S. Senator Dianne Feinstein. September 1, 2005. Interview with Commission staff.

62. California Water Code, Sections 79420, 79421, 79423. Also, California Bay-Delta Authority. September 2003. "Amended and Restated Implementation Memorandum of Understanding."

63. United States Department of the Interior, Bureau of Reclamation. July 2001. "California Bay-Delta Public Advisory Committee Charter." Also, United States Department of the Interior. July 2005. "California Bay-Delta Public Advisory Committee Charter."

64. The Resources Agency, Department of Water Resources and Department of Fish and Game. October 2005. "Delta Smelt Action Plan." State of California. www.publicaffairs.water.ca.gov/ newsreleases/2005/10-19-05DeltaSmeltActionPlan.pdf. Accessed November 7, 2005.

65. Jeffrey F. Mount, Professor and Director, Center for Integrated Watershed Science and Management, University of California, Davis. September 19, 2005. Written communication. On file. Robert Cooke, Chief of Project Water Management, State Water Project Analysis Office, Department of Water Resources. September 26, 2005. Written communication. On file.

66. L. Ryan Broddrick, Director, Department of Fish and Game. October 27, 2005. Written communication and attached report, "Department of Fish and Game Response to The Little Hoover Commission Regarding Conditions in the Delta Ecosystem." On file.

67. Charles Armor, Operations Manager, Central Valley Bay-Delta Branch, Department of Fish and Game. November 7, 2005. Personal communication. Interagency Ecological Program Web site. http://www.iep.water.ca.gov/. Accessed October 31, 2005.

68. Michael F. Burke, Associate Director, Chesapeake Bay Program Office, U.S. Environmental Protection Agency, Region III. October 27, 2005. Discussion with Commission and CBDA staff.

69. Col. (ret.) Greg May, Executive Director, South Florida Restoration Task Force. October 27, 2005. Discussion with Commission and CBDA staff.

70. Carl Hasty, Deputy Executive Director, Tahoe Regional Planning Agency. October 27, 2005. Discussion with Commission and CBDA staff.

71. Lester A. Snow, Director, Department of Water Resources. November 2, 2005. Written communication. On file.

72. Thomas R. Pinkos, Executive Officer, Central Valley Regional Water Quality Control Board. October 26, 2005. On file. Written Communication. Central Valley Regional Water Quality Control Board. October 2005. "Water Quality Trends in the Delta." On file.

73. Linda Fiack, Executive Director, Delta Protection Commission. October 6, 2005. Written communication. On file. Delta Protection Commission. July 2005. "Pending Projects Memo." www.delta.ca.gov. Accessed October 2005. Sheila Singleton, Delta Protection Commission. November 2, 2005. Written communication. On file. Jeri White, Office Assistant, City of Lathrop Planning Department. November 2, 2005. Personal communication. David Morrison, Assistant Director of Planning, Yolo County Planning Department. November 2, 2005. Written communication. On file.

74. L. Ryan Broddrick, Director, Department of Fish and Game. See endnote 66.

75. Peter D. Rabbon, General Manager, Reclamation Board. November 2, 2005. Written communication.

76. L. Ryan Broddrick, Director, Department of Fish and Game. See endnote 66.

77. Stephen K. Hall, Executive Director, Association of California Water Agencies. September 22, 2005. Written testimony to the Commission, Page 6.

78. Bennett Raley, Former Assistant Secretary for Water and Science, U. S. Department of the Interior. August 25, 2005. Testimony to the Commission. Also, Jason Peltier, Deputy Assistant Secretary for Water and Science, U. S. Department of the Interior. July 19, 2005. Interview with Commission staff.

79. CALFED Bay-Delta Program. August 28, 2000. "Programmatic Record of Decision." Page 34. Sacramento, CA.

80. Little Hoover Commission. April 1965, "The Use of Boards and Commissions in the Resources Agency." Sacramento, CA.

81. Little Hoover Commission. December 2004. "Historic Opportunities: Transforming California State Government. Also, Governor Arnold Schwarzenegger. January 6, 2005. "Governor's Reorganization Plan 1: Reforming California's Boards and Commissions." Little Hoover Commission Public Hearing on Reorganization Plan 1. January 26, 2005. Written testimony available at the Commission's Web site: http://www.lhc.ca.gov/lhcdir/GRP1.html.

82. California Water Code Sections 79403.5(a), 79403.5(c) and 79423(l).

83. Jason Peltier, Deputy Assistant Secretary for Water and Science, U.S. Department of the Interior. August 25, 2005. Testimony to the Commission.

84. Yating Liang and Rick Breitenbach, California Bay-Delta Authority. September 13, 2005. Interview with Commission staff.

85. Kate Williams, Assistant Director Policy and Finance, California Bay-Delta Authority. September 20 & 21, 2005. Interviews with Commission staff.

86. Bill Forsythe, Assistant to the Director, California Bay-Delta Authority. October 24, 2005. Progress Meeting with Commission staff.

87. Keith Coolidge, Deputy Director, Communications, California Bay-Delta Authority. September 14, 2005. Interview with Commission staff.

88. Roger K. Patterson, Former Regional Director, U.S Bureau of Reclamation. August 25, 2005. Testimony to the Commission.

89. Tim Ramirez, Environmental Restoration Program, California Bay-Delta Authority. August 17, 2005. Interview with Commission staff.

90. Steve P. Thompson, Manager, California-Nevada Operations Office, U.S. Fish and Wildlife Service. August 25, 2005. Testimony to the Commission.

91. Wendy Halverson Martin, Chief Deputy Director, California Bay-Delta Authority. September 14, 2005. Interview with Commission staff.

92. California Bay-Delta Authority. December 2004. "CALFED Accomplishments and Program Performance." (Working Draft) www.calwater.ca.gov/Perf-Meas-2004/. Accessed November 9, 2005.

93. California Bay-Delta Authority. "CALFED Bay-Delta Program Annual Report 2004." Science Program, Page 50. http://www.calwater.ca.gov/AboutCalfed/AnnualReport2004.shtml. Accessed November 9, 2005.

94. Kate Williams, Assistant Director Policy and Finance, California Bay-Delta Authority. September 20 & 21, 2005. Interviews with Commission staff.

95. Tim Ramirez, Environmental Restoration Program, California Bay-Delta Authority. August 17, 2005. Interview with Commission staff.

96. Keith Coolidge, Deputy Director, Communications, California Bay-Delta Authority. September 14, 2005. Interview with Commission staff.

97. Johnnie E. Frazier, Office of Inspector General, U.S. Department of Commerce. July 8, 2005. The NMFS Review Process for the California Central Valley and State Water Projects' Biological Opinion Deviated from the Region's Normal Practice, Final Audit Report No. STL-17242-5-0001, Transmittal Memorandum. http://www.oig.doc.gov/oig/reports/2005/NOAA-STL-17242-07-2005.pdf. Accessed November 9, 2005.

98. Michael D. Aceituno, Supervisor, Sacramento Area Office, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. July 29, 2005. Letter to Joe Grindstaff, Acting Director and Dr. Johnnie Moore, Lead Scientist, California Bay-Delta Authority. Reference number 151422SWR2004SA9116:MEA.

99. Susan Kennedy, Member, California Bay-Delta Authority, former Cabinet Secretary and Deputy Chief of Staff to Governor Davis, and former Communications Director to U.S. Senator Dianne Feinstein. August 12, 2005. Interview with Commission staff.

100. Carl Hasty, Deputy Executive Director, Tahoe Regional Planning Agency. October 27, 2005. Discussion with Commission and CBDA staff.

101. Mary Nichols, former Secretary, California Resources Agency. August 2, 2005. Interview with Commission staff.

102. Ellen Hanak and Mark Baldassare. Public Policy Institute of California. 2005. "California 2025: Taking on the Future." P. 235. http://www.ppic.org/main/publication.asp?i=489. Accessed November 8, 2005.

103. Cynthia Koehler, Public Interest Attorney and Environmental Advocate. September 22, 2005. Testimony to the Commission. Also, Jody Freeman, Professor of Law, Harvard Law School. October 27, 2005. Written testimony to the Commission.

104. Greg May, Executive Director, South Florida Ecosystem Restoration Task Force. October 27, 2005. Discussion with Commission and CBDA staff.

105. Jody Freeman, Professor of Law, Harvard Law School. October 27, 2005. Testimony to the Commission. Also, Patrick Johnston, former California State Senator and Member, California Bay-Delta Authority. August 4, 2005. Interview with Commission staff.

106. Stephen K. Hall, Executive Director, Association of California Water Agencies. September 22, 2005. Written testimony to the Commission, Page 3. Timothy H. Quinn, Ph.D., Vice President, State Water Project Resources, Metropolitan Water District of Southern California. September 22, 2005. Written testimony to the Commission. Page 4. Al Montna, Member, California Bay-Delta Authority. August 10, 2005. Interview with Commission staff.

107. Al Montna, Member, California Bay-Delta Authority. August 10, 2005. Interview with Commission staff. Also, Paula Daniels, Member, California Bay-Delta Authority. July 21, 2005. Interview with Commission staff.

108. California Bay-Delta Authority Act. SB 1653 (Costa). Chapter 812, Statutes of 2002. California Water Code Section 79421 (l).

109. Randele Kanouse, Special Assistant to the General Manager, East Bay Municipal Utility District. September 22, 2005. Written testimony to the Commission. Also, written responses to the Commission's email questionnaire.

110. Marc Holmes, Member, California Bay-Delta Authority. July 21, 2005. Interview with Commission staff.

111. Alisha Deen-Steindler. Legislative Analyst. Environmental Justice Coalition for Water. Oakland, CA. September 2, 2005. Letter to the Commission. On file.

112. California Department of Water Resources. April 2005. California Water Plan Update 2005, Public Review Draft. http://www.waterplan.water.ca.gov/cwpu2005/index.cfm. Web site accessed October 21, 2005. Also, Mindy McIntyre, Planning and Conservation League. July 22, 2005. Written comments on the Draft Water Plan Update 2005 to Paul Dabbs, Statewide Planning Branch, Department of Water Resources. Also, KPMG. October 17, 2005. CALFED Interview and Survey Findings Report to the California Resources Agency. Page 14.

113. California Department of Water Resources. April 2005. California Water Plan Update 2005, Public Review Draft. http://www.waterplan.water.ca.gov/cwpu2005/index.cfm. Web site accessed October 21, 2005.

114. Dennis O'Connor, Consultant, Senate Committee on Natural Resources. September 14, 2005. Interview with Commission staff.

115. California Bay-Delta Authority Act. SB 1653 (Costa). Chapter 812, Statutes of 2002.

116. Steve P. Thompson, Manager, California-Nevada Operations Office, U.S. Fish & Wildlife Service. August 25, 2005. Written testimony to the Commission.

117. Edward Gee, Assistant Regional Solicitor, U.S. Department of the Interior. August 1, 2005. Interview with Commission staff.

118. U.S. Department of the Interior. July 18, 2005. "California Bay-Delta Public Advisory Committee Charter."

119. Jason Peltier, Deputy Assistant Secretary for Water and Science, U.S. Department of the Interior. August 25. 2005. Written testimony to the Commission.

120. Sarah Connick, Associate Director, Sustainable Conservation. July 9, 2005. Written communication to the Commission. On file.

121. Alisha Deen-Steindler, Legislative Analyst, Environmental Justice Coalition for Water. See endnote 111.

122. Frances Spivy-Weber, Executive Director for Policy, Mono Lake Committee. August 25, 2005. Written testimony to the Commission. Also, Laura King Moon. August 4, 2005. Written communication. On file.

123. Linda Best, Executive Director, Contra Costa Council, et al. September 21, 2005. Letter to the Commission. On file. Also, Bay-Delta Public Advisory Committee Members (Updated May 5, 2005). www.calwater.ca.gov/BDPAC/BDPAC_Members.asp. Also, Bay-Delta Advisory Council (CBDAC) Members. www.calwater.ca.gov/Archives/GeneralArchive/CBDACMembers.shtml. Accessed October 11, 2005.

124. Alisha Deen-Steindler, Legislative Analyst, Environmental Justice Coalition for Water. See endnote 111.

125. Henry Clark, Executive Director, West County Toxics Coalition and acting Co-Chair, Environmental Justice Subcommittee, Bay-Delta Public Advisory Committee. September 22, 2005. Written testimony to the Commission.